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Table of contents

4 *Masthead*

6 *Preface*

7 *Hormones, Alcohol & Cognition*

35 *The Construction of Diasporic Identity*

51 *Fast But Feminine?*

64 *Conversion Therapy Exposure Across European Countries*

84 *Interplay of Insomnia, Depression and Mediating Factors*

100 *The Green Void*

126 *Governing Roma Inclusion through Urban Space*

147 *(Imposed) Division of Cyprus*

162 *Effect of Women's Empowerment on Child Nutritional Status*

180 *Closing statement*

Masthead 2025-2026 Volume 2 Issue 2

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Preface

The Amsterdam Journal of Social Sciences closes out our most successful year to date. With more publications and events than ever before, we conclude the 2025/2026 academic year with this printed edition. Such a prolific output was made possible with the steady growth of our team and the tireless efforts of the Board and the editors behind the scenes. This year, we took it upon ourselves to bring to life an evolved vision of the AJSS, based on accessibility, consensus, and a consideration for the future. **We hope to see it continue to flourish, and that you will be there to witness it.**

In times of increasing censorship within mainstream publishing, we strive to provide an independent outlet for Social Science students and their research. Through our publications and collaborations, we have platformed diversity, intersectionality, and resistance – contributing to the opposition of the rise in anti-intellectualism. In this printed edition, you will find articles on feminism, diaspora, queer rights – to name a few of the topics covered. **The AJSS will continue to remain a pillar of integrity in student publishing for all the upcoming academics wanting to be heard.**

The year's success would not have been possible without our community. The workshops, symposia, and special editions were all organized with the mission to bring the world of academia closer to you, providing a glimpse of the environments you can inhabit one day as a researcher. **Your presence and involvement keep us motivated and remind us of why we do this in the first place. So thank you for coming, for all the questions and the post-event chats.**

We are proud to present to you our final printed edition of the year. There will be more to come after the summer. **We hope you enjoy and engage with this fine selection.**

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Hormones, Alcohol & Cognition: Menstrual Cycle Influences on Neurocognitive Functioning Underlying Alcohol Use and Alcohol Use Disorder

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Abstract

The menstrual cycle has emerged as a potential key factor in the treatment and recovery from substance use disorder. Existing research on nicotine cessation shows the impact of the menstrual cycle on withdrawal, abstinence, and relapse. However, similar research on alcohol use disorder (AUD) is lacking. Various neurocognitive domains are implicated in an AUD, notably cognitive control, negative emotionality, and incentive salience. Menstrual cycle fluctuations can further impact these neurocognitive processes. This literature review examines the menstrual cycle and neurocognitive functioning involved in alcohol use through three different aims: 1) menstrual cycle moderation of acute alcohol on neurocognitive process in non-AUD populations, 2) menstrual cycle moderation of general alcohol use in non-AUD populations, and 3) menstrual cycle influence on neurocognition in individuals with an AUD**.** N = 17 studies were included, with n = 10 focusing on acute alcohol consumption, n = 5 examining alcohol use in non-AUD populations, and n = 2 examining use in individuals with an AUD. Findings in non-AUD populations show impaired cognitive control in high estrogen vs. low estrogen phases, including worsened inhibition, attention, and vigilance, and increased negative emotionality in the luteal phase and menstrual phases, compared to follicular and peri-ovulatory phases, with increased drinking motives to cope. Incentive salience also rose in high estrogen phases for the non-AUD population, linked to increased reward sensitivity in high vs. low estrogen phases. The studies that explicitly looked at individuals with an AUD found lower probabilities for binge drinking and greater capacity for emotional reasoning in the high progesterone phase (luteal phase) than in the low progesterone phases (follicular, peri-ovulatory, and menstrual week phases). Findings demonstrate how ovarian hormone fluctuations may shape neurocognitive vulnerabilities to alcohol use. Raising awareness of menstrual cycle effects on neurocognition could improve prevention strategies, treatments, and recovery outcomes for menstruators navigating AUDs.

Keywords

Menstrual cycle, AUD, neurocognition, alcohol use

Introduction

Background and Context

Alcohol Use Disorder (AUD) is a condition characterized by clinically significant impairment or distress resulting from alcohol use, with substantial variability in its course, from full remission to chronic relapsing (MacKillop, 2019; Nehring et al., 2023). Studies suggest that AUD has one of the lowest treatment rates, with only 10% or less of individuals fitting the diagnostic criteria in Europe receiving treatment (Probst et al., 2015). Although a substantial number of these individuals recover without treatment, at least 25% of those needing treatment for AUD fail to receive it (Tuithof et al., 2016). There is evidence that sex and gender differences in AUD may further exacerbate this treatment gap due to the unique needs of each gender, which also influences treatment efficacy and mechanisms of behavior change (Alonso-Marmelstein et al., 2025; Holzhauer et al., 2020). Not only is the treatment gap affected by sex and gender differences, but research indicates that gender-specific factors significantly impact cessation strategies, chronic relapse treatment protocols, and long-term recovery outcomes (Walitzer et al., 2006). As a call to de-gender and de- stigmatize menstruation and include not only women and sex-assigned females but also menstruators of trans or other gender identities, the term "menstruators" will be used in this review to encompass all those who actively menstruate (Rydström, 2020). One potential mechanism through which alcohol may disproportionately impact menstruators is through its unique interactions with ovarian hormone fluctuations across the menstrual cycle (Sarkola et al., 1999). The menstrual cycle is being increasingly considered in research on other substances, such as nicotine, where hormonal interventions could offer innovative approaches for cessation and treatment (Giner et al., 2024). However, research on AUD remains limited and may provide beneficial insight into potential novel treatment approaches and protocols for alcohol use recovery.

Sex and Gender Differences in Alcohol Use Disorder

In this article, "sex" refers to sex assigned at birth, while "gender" refers to self-described gender identity. Research on alcohol and substance use has been predominantly focused on sex-assigned males, with menstruators being heavily underrepresented (Joyce et al., 2021). Due to this lack of representation in research, menstruators may have received interventions that are potentially less effective for them, with a general lack of acknowledgment of specific interventions that address sex hormone-specific variations around alcohol consumption and treatment (Joyce et al., 2021). Gender differences also suggest that among adults, hazardous alcohol use is increasing for women but not for men, with a more considerable increase in adverse outcomes such as hospitalizations and deaths for women (White, 2020). Women with AUD may face a disadvantage in the bidirectional relationship between cognitive functioning and alcohol use, experiencing greater difficulties than men in working memory, emotional processing, visuospatial abilities, balance, and social cognition (Fama et al., 2020). While overall relapse rates do not differ between men and women, the predictors of relapse are gender-specific: women have greater relapse risk around marriage and marital stress, while for men, marriage lowered relapse risk (Walitzer et al., 2006). Other aspects, such as interpersonal conflict and negative affect, were also risk factors for alcohol relapse in women

(Walitzer et al., 2006). Affect is of specific interest, as aspects such as worry have been associated with ovarian hormones (Russman Block et al., 2024). On a more biological level, alcohol may have a more negative effect on sex-assigned females than sex-assigned males due to the pharmacokinetics and pharmacodynamics of alcohol on their bodies (Fama et al., 2020; Glanton Golzhauer et al., 2020). Sex hormones (specifically estrogen and progesterone) interact with alcohol use and could influence patterns of a menstruator's alcohol intake (Glanton Golzhauer et al., 2020). Ovarian hormones, therefore, may be a factor affecting menstruators' substance use and addictive behavior (Joyce et al., 2019). However, these differences may not be purely biological but could also be due to poorer identification of substance-related problems in menstruators (Sallaup et al., 2016).

Several key literature reviews suggest a meaningful, though not yet fully understood, relationship between alcohol consumption patterns and cyclical fluctuations in ovarian hormones. While evidence supports this link, the underlying psychological and physiological mechanisms and its potential impact on AUD remains insufficiently explored, highlighting the need for further research (Caroll et al., 2015; Warren et al., 2021). Additionally, the phenomenon of "telescoping," which addresses the quicker progress of women from initial alcohol use to AUD in comparison to men, further highlights the unique variations in AUD progression by gender (Carroll et al., 2016). Building on the above findings: the under recognition of substance-related problems in menstruators, hormonal influences on alcohol consumption, gender-specific relapse predictors, cognitive and emotional vulnerabilities, pharmacokinetic and pharmacodynamic sex differences, and the telescoping effect— the current paper focuses on how the menstrual cycle may modulate the acute effects of alcohol on neurocognitive functioning. This study examines both non-clinical populations and individuals with an AUD, with an emphasis on understanding the neurocognitive and neurobiological mechanisms as they may offer insight into interactions that remain underexplored (Warren et al., 2021).

The Menstrual Cycle

Estrogen and progesterone are key menstrual cycle hormones that govern the menstrual cycle but also affect the central nervous system (CNS) (Hampson, 2020). The term estrogen will be used widely in this review to encompass estradiol (E2), the primary form of estrogen found during the premenopausal period (Coelingh Bennink, 2004). Although a 28-day cycle is commonly assumed, only 15% of menstruators experience this length, with healthy cycles ranging from 24 to 35 days (Bull et al., 2019). Therefore, standardized days should not be used, and instead, we can discern different stages of the menstrual cycle by rising levels of endogenous estrogen and progesterone, as shown in Figure 1. Schmalenberger et al. (2021) and Hampson (2020) have created practical tools and recommendations for researchers to follow. Instead of focusing on the day frame, they recommend focusing on the specific hormonal fluctuations and overlapping them with the different phases of the menstrual cycle (Hampson, 2020; Schmalenberger et al., 2020). The recommended phases include peri-menstrual, mid-follicular, peri-ovulatory, and mid-luteal. Additional phases can be found in Figure 1. Combined with recommendations for researchers, operational definitions for the cycle in this review are as follows: The menstrual week includes all those days when a menstruator is actively bleeding, usually lasting between 2-7 days (Schmalenberger et al., 2020). The follicular phase is characterized by rising estrogen in preparation for ovulation. The peri-ovulatory phase is considered the days near and around ovulation when there is a primary peak and a subsequent fall in estrogen levels with the release of an ovarian follicle (Schamlenberger et al., 2020; Hampson, 2020). The luteal phase is characterized by rising progesterone and lasts until menses onset (Schmalenberger et al., 2020). Instead of opting

for mid-follicular/mid-luteal, this review uses the overarching follicular and luteal phase as working definitions due to many of the included studies not accurately assessing the mid-range of either phase (Linnoila et al., 1980; Freitag & Adesso, 1993; Milivojevic et al., 2014; Mumenthaler et al., 2001). The term menstrual week is additionally used instead of peri-menstrual due to included studies focusing on the days of active menstruation rather than including the days before menses onset, as defined by Schmalenberger et al. (2020).

Figure 1

Graphical overview of the menstrual cycle and its phases (directly taken from Schmalenberger et al., 2020)

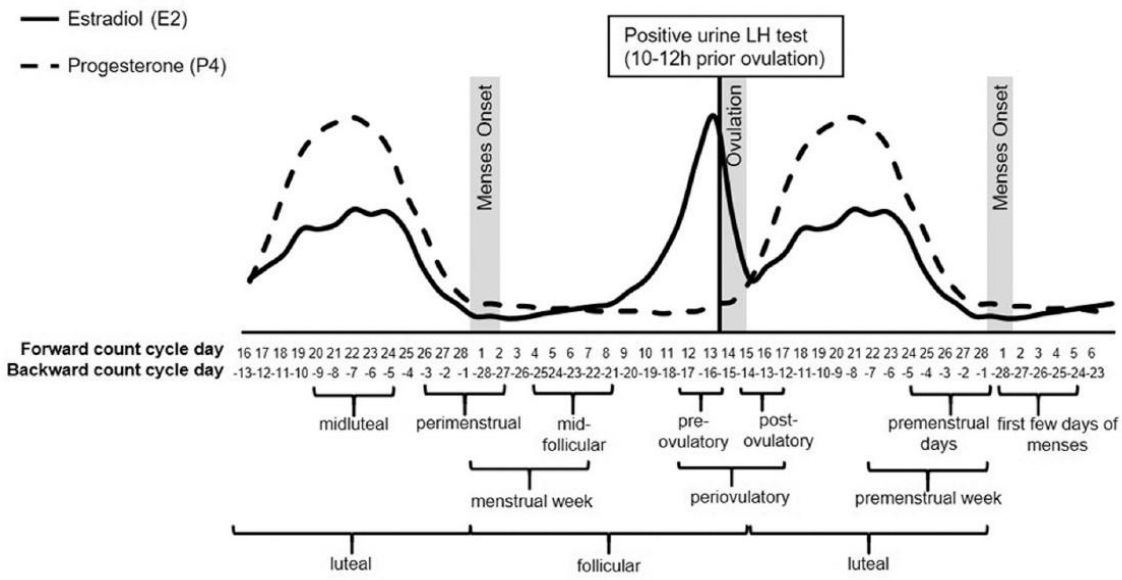


Figure 2.
Graphical overview of the menstrual cycle and its phases.

Note. This includes estrogen (estradiol, E2) and progesterone (P4). Ovulation and menses onset are explicitly shown. Day 1 of the menstrual cycle is the onset of menses. The menstrual week phase characterizes the days of active menstrual bleeding, the follicular phase characterizes rising estrogen, the peri-ovulatory phase is the days near and around ovulation, and the luteal phase is characterized by rising progesterone and lasts until menses onset.

Substances and the Menstrual Cycle

To better understand how menstrual cycle-related hormonal fluctuations might shape alcohol-related neurocognitive processes, it is valuable to consider evidence from research on other substances. Well-established research on nicotine indicates that nicotine reward is enhanced during the follicular phase, when estrogen is high, while withdrawal symptoms are enhanced during the luteal phase, when progesterone is higher (Giner et al., 2024). Estrogen modulates brain reward systems and promotes associative reward learning and the development of compulsive reward-seeking behavior, while progesterone opposes these effects and reduces the reward efficacy of substances (Hilz & Lee, 2023). Similarly, research on cocaine use and cocaine use disorder illustrates the impact

of sex hormone levels on reward-seeking behavior. High progesterone, compared to low progesterone, is associated with decreased stress-induced and cue-induced craving, as well as lower anxiety and blood pressure responses during cue exposure (Sinha et al., 2007). Progesterone modulates GABAA receptors, which produce anxiolytic and anti-stress effects, giving a potential physiological explanation for this occurrence (Fox et al., 2004). These findings suggest that menstrual cycle fluctuations impact neurocognitive functions related to substance use and addiction.

Although several reviews have examined the effects of menstrual cycle phases on alcohol consumption, they have not specifically explored the underlying neurocognitive processes (Carroll et al., 2015; Warren et al., 2021). Therefore, we can draw on existing theories, namely, the self-medication theory and the reward-sensitivity theory, to help illuminate potential mechanisms driving these fluctuations in alcohol use across the cycle (Joyce et al., 2021). The self-medication theory suggests that increases in negative affect, specifically during the luteal and menstrual week phases, may drive heightened binge drinking as a way to cope. In contrast, the reward-sensitivity theory emphasizes that increased positive affect and increased reward-seeking behavior, particularly around the follicular phase and peri-ovulation, may also lead to increased drinking. While these theories highlight different mechanisms and cycle phases, they are not mutually exclusive. Together, they suggest that alcohol use may fluctuate across the menstrual cycle due to shifting affective and motivational states. However, findings remain generally inconsistent, with some studies reporting heightened alcohol use during the luteal and menstrual phases and others reporting increases around peri-ovulation, highlighting the complex interplay of hormonal and cognitive factors affecting drinking behavior throughout the menstrual cycle (Joyce et al., 2021). This highlights the need for more nuanced research, particularly around neurocognition. As executive control and risk-reward processing are key elements to understanding and maintaining addictive behaviors, examining how the menstrual cycle moderates the acute effects of alcohol on neurocognitive functioning, as well as neurocognitive changes in individuals with an AUD, could provide insights into the development, progression, and treatment of AUD (Christensen et al., 2023).

Neurocognition in Alcohol Use Disorder

To understand how AUD develop and persists, it is essential to examine how chronic alcohol use affects the three neurocognitive domains that are most often implicated in the neurocircuitry of addiction: cognitive control, negative emotionality and incentive salience (Ekhtiari et al., 2020). Alterations in these systems can be both potential precursors or consequences of substance use disorder (Ekhtiari et al., 2020). Framing AUD through this lens allows for a more integrated analysis of the neurobiological mechanisms that underlie AUD and how the menstrual cycle may affect it.

Cognitive control refers to deficits in executive functioning, attentional control, response inhibition, working memory, cognitive flexibility, and planning (Ekhtiari et al., 2020). Negative emotionality refers to responses to aversive stimuli, such as stress, fear, loss, and anxiety, which may drive alcohol consumption as a means of coping with negative affect, stress, or aversive states (Ekhtiari et al., 2020). And lastly, incentive salience examines reward responsiveness, reward learning, and motivation for alcohol use (Ekhtiari et al., 2020).

These three neurocognitive domains can be mapped onto the behavioral progression of addiction, which includes: compulsion to seek and take the drug, loss of control in limiting intake, and emergence of a negative

emotional state reflecting withdrawal when access is prevented (Koob & Bolkow, 2010). Impulsivity drives early-stage substance use, gradually moving to compulsivity as motivation transitions from positive reinforcement to negative reinforcement (Koob, 2004). Positive reinforcement refers to the drive for pleasant feelings and social enhancements, while negative reinforcement highlights the relief of negative affect, such as stress or anxiety, that motivate substance use (Bin Cho et al., 2019). When connected to the three neurocognitive domains, incentive salience may play a larger role in the early stages of behavior progression through its impact on social motivations and its pleasurable effects, while negative emotionality may underlie later-stage reinforcements by driving use to avoid negative affect or states (Ekhtiari et al., 2020). Impairments in cognitive control may increase as use increases and use shifts from impulsive to compulsive and use becomes chronic (Ekhtiari et al., 2020).

Chronic substance use creates acute and long- term neuroadaptive changes in the brain that may result in greater relapse, which relate to increases in both impulsivity and compulsivity (Koob & Bolkow, 2010). These changes occur primarily through neuroplasticity, mediated mainly by dopamine, where reward systems get dysregulated, and substance use becomes associated with specific environmental cues and increased incentive salience (O'Brien, 2009). The mesolimbic dopamine system plays a key role in the executive, affective, and motivational functions during the binge/intoxication stage (Koob & Bolkow, 2010; Serafini et al., 2019). The amygdala, a central emotional processor, integrates and promotes negative reinforcement mechanisms during withdrawal (Koob & Bolkow, 2010). The prefrontal cortex (PFC), hippocampus, and insula drive the preoccupation/anticipation stage, modulating attention and inhibitory control (Koob & Bolkow, 2010).

Together, these neurobiological systems support the interconnection of neurobiological mechanisms, behavioral stages of addiction, and neurocognitive domains that provide a comprehensive foundation for investigating sex and gender differences in AUD and developing targeted, effective interventions based on neurobiological profiles.

Rationale for the Study

Research on the menstrual cycle is increasingly uncovering how sex hormone fluctuations affect withdrawal, craving, and relapse in substance use (Giner et al., 2024; Joyce et al., 2021). Estrogen and progesterone, key hormones of the menstrual cycle, have been shown to modulate reward-seeking behavior for substances such as nicotine and cocaine (Giner et al., 2024; Sinha et al., 2007). Emerging evidence also suggests associations between alcohol consumption and the menstrual cycle, highlighting the potential role of naturally-occurring hormonal fluctuations to influence alcohol use patterns (Joyce et al., 2021; Warren et al., 2021).

Estrogen and progesterone have been linked to fluctuations in cognitive functions, such as impulsivity and recklessness, across the menstrual cycle (Dreher et al., 2007; Hilz & Lee, 2023). These effects may possibly involve interactions with the PFC, reward pathways, and mesolimbic dopamine systems (Amin et al., 2006; Arélin et al., 2015; Dreher et al., 2007; Keenan et al., 2001). As such, these hormonal fluctuations may modulate neurocognitive processes in both non-clinical populations and individuals with an AUD.

Prolonged and problematic alcohol use is associated with neurocognitive alterations, such as increased impulsivity, stress reinforcement, and disrupted cognitive control (Koob & Bolkow, 2010). These alterations may both precede and result from such substance use, underscoring a bidirectional relationship between alcohol and neurocognition. This bidirectional relationship underscores the importance of considering underlying neurocognitive

shifts and vulnerabilities that may play a role in the prevention and treatment of AUD. Adopting a neurocognition lens to examine this relationship is crucial, as it helps reveal how alcohol use and hormones interact to affect brain function such as executive functioning (Christensen et al., 2023). It may additionally offer insight into why, when and how menstruators may be more affected by acute alcohol and its long term potential to progress into an AUD, as well as its implications for treatment when seeking support for cessation. Implications can include integrating cycle-informed psychoeducation into public health campaigns for AUD prevention, educating on hormonal influences to craving and potential relapse in those with an already existing AUDs, and addressing behavioral changes such as increased impulsivity through the menstrual cycle via tailored therapeutic approaches.

Although interest in this area is growing, existing research in AUD has been done primarily on sex-assigned male populations or has not accounted for menstrual cycle variations, potentially concealing sex and gender differences. Investigating how the menstrual cycle modulates both the acute neurocognitive effects of alcohol, as well as its role in longer-term drinking and those with an AUD, may offer crucial insights for developing sex hormone-informed prevention strategies, treatments, and interventions.

Objectives

This systematic review has three aims: examining how the menstrual cycle moderates the acute effect of alcohol on the neurocognitive process in individuals without an AUD, how the menstrual cycle moderates alcohol use in non-AUD populations, and how the menstrual cycle influences neurocognition in individuals with an AUD. It highlights the need for sex and gender-specific research, prevention strategies, and treatment adaptations. The review aims to promote further awareness and more effective strategies for preventing AUD and managing AUD in those with a menstrual cycle.

Methodology

Literature Search Strategy

A systematic review search was conducted according to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines. Electronic searches were conducted in January 2024 using MeSH terms and text keywords in the PubMed database. The PubMed searches used the search string found in Table 1. Filters were applied to only include empirical peer-reviewed journal articles and studies done on humans. The initial search yielded n= 369 results, which were then imported into Rayyan.AI to remove duplicates and for appropriate screening.

Table 1

MeSH & Free Textform Keyword Search Terms

Query = (Alcohol) AND (Menstruation) AND (Neurocognition) NOT (Exclusion)			
Alcohol	Menstruation	Neurocognition	Exclusion
"alcohol"[Title/Abstract] OR "alcohol use"[Title/Abstract] OR "alcohol consumption"[Title/Abstract] OR "binge drinking"[Title/Abstract] OR "alcohol craving"[Title/Abstract] OR "alcohol relapse"[Title/Abstract] OR "alcohol craving"[Title/Abstract] OR "alcohol dependence"[Title/Abstract] OR "alcohol use disorder"[Title/Abstract] OR "AUD"[Title/Abstract]	"menstrua*"[Title/Abstract] OR "menstrual cycle"[Title/Abstract] OR "hormonal fluctuations"[Title/Abstract] OR "ovarian hormones"[Title/Abstract] OR "estrogen"[Title/Abstract] OR "progesterone"[Title/Abstract] OR "estradiol"[Title/Abstract] OR "menstruation"[Title/Abstract] OR "follicular"[Title/Abstract] OR "luteal"[Title/Abstract] OR "ovulation"[Title/Abstract]	"cognit*"[Title/Abstract] OR "cognitive"[Title/Abstract] OR "cognitive function"[Title/Abstract] OR "cognitive functions"[Title/Abstract] OR "cognitive performance"[Title/Abstract] OR "motive"[Title/Abstract] OR "motives"[Title/Abstract] OR "Behavioral impairment"[Title/Abstract] OR "inhibitory control"[Title/Abstract] OR "disinhibition"[Title/Abstract] OR "disinhibiting effect"[Title/Abstract] OR "stress reactivit*"[Title/Abstract] OR "cue reactivit*"[Title/Abstract] OR "cognitive control"[Title/Abstract] OR "acute effect*"[Title/Abstract] OR "immediate reward*"[Title/Abstract] OR "reward*"[Title/Abstract] OR "cue reactivit*"[Title/Abstract] OR "working memor*"[Title/Abstract] OR "Executive functioning"[Title/Abstract] OR "cognitive control"[Title/Abstract] OR "inhibitory	"Review"[Publication Type] OR "Systematic Review" [Publication Type] OR "Meta-Analysis"[Publication Type] OR "Meta-Analysis as Topic"[Mesh] OR "meta-analysis"[tiab] OR "systematic review*"[tiab] OR "systematic literature review*"[tiab] OR "Letter"[Publication Type] OR "Editorial"[Publication Type] OR "Comment"[Publication Type] OR "Case Reports"[Publication Type] OR "Interview"

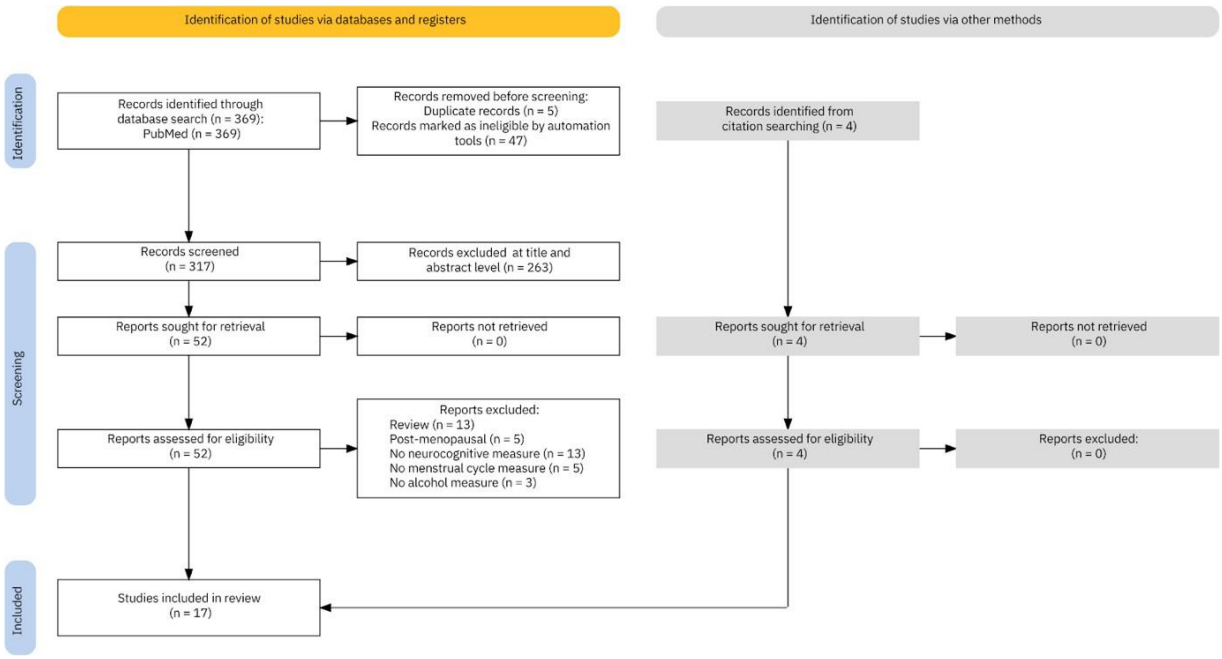
		control"[Title/Abstract] OR "response inhibition"[Title/Abstract] OR "error processing"[Title/Abstract] OR "error monitoring"[Title/Abstract] OR "executive control"[Title/Abstract] OR "go/no- go"[Title/Abstract] OR "go nogo"[Title/Abstract] OR "go/no- go"[Title/Abstract] OR "stop signal*"[Title/Abstract] OR "Flanker"[Title/Abstract] OR "Stroop"[Title/Abstract] OR "disinhibition"[Title/Abstract] OR "disinhibiting"[Title/Abstract] OR "inhibition"[Title/Abstract] OR "meta- cognitive control"[Title/Abstract] OR "metacognitive control"[Title/Abstract] OR "impulse control"[Title/Abstract] OR "stress"[Title/Abstract] OR "Emotion"[Title/Abstract] OR "stress exposure"[Title/Abstract] OR "psychological stress"[Title/Abstract] OR "reward*"[Title/Abstract] OR "punishment*"[Title/Abstract] OR "delay discounting*"[Title/Abstract] OR "monetary incentive delay*"[Title/Abstract] OR "reinforcement learning*"[Title/Abstract] OR "visuospatial"[Title/Abstract] OR "working memory"[Title/Abstract] OR "memory"[Title/Abstract] OR "cue"[Title/Abstract] OR "cues"[Title/Abstract] OR "stress"[Title/Abstract] OR "memory"[Title/Abstract] OR "learning"[Title/Abstract] OR "encoding"[Title/Abstract] OR "retrieval"[Title/Abstract] OR "fear extinction"[Title/Abstract] OR "retention"[Title/Abstract] OR "recollection"[Title/Abstract] OR "attention"[Title/Abstract] OR "attentional bias"[Title/Abstract] OR "task switching"[Title/Abstract] OR "recollection"[Title/Abstract] OR "risky decision-making"[Title/Abstract] OR "risk- taking"[Title/Abstract] OR "decision- making"[Title/Abstract] OR "loss aversion"[Title/Abstract] OR "temporal discounting"[Title/Abstract] OR "impulsivity"[Title/Abstract] OR "aversion"[Title/Abstract] OR "compulsive behavior"[Title/Abstract] OR "habit formation"[Title/Abstract] OR "decision"[Title/Abstract]	[Publication Type] Filters: Humans

Note. The search strategy included both Medical Subject Heading (MeSH) and free-text keywords across three key domains: (1) alcohol use and substance-related behaviors, (2) the menstrual cycle and hormonal fluctuations, and (3) neurocognitive functions. Specific criteria were applied to refine the results, and filters were set to exclude non-empirical studies and only include human studies.

The remaining articles were screened to identify possible eligibility based on inclusion and exclusion criteria, followed by abstract and full-text screening to ensure the inclusion criteria were appropriately met. Additional articles found through backward citation tracking were assessed for relevance using the same inclusion and exclusion criteria as the database-identified studies, leading to the inclusion of n=4 additional studies.

Figure 2

PRISMA Flowchart



Note. This figure illustrates the study selection criteria process according to the PRISMA guidelines, including identification of studies via databases and registers and studies included via other methods (primarily, backward citation tracking) for a total of N = 17 studies. The PRISMA flow diagram was generated using the *PRISMA2020 Shiny App* (Haddaway et al., 2022).

Inclusion and Exclusion Criteria

Studies were included if they met the following criteria: a) looked at neurocognitive effects in at least two different phases of the menstrual cycle, b) examined the effect of alcohol (acute or chronic) on cognition, c) used human participants, d) explicitly measured hormonal levels or did menstrual cycle tracking. These criteria were chosen to allow for comparison across menstrual cycle phases surrounding alcohol consumption and cognitive functioning. Studies were excluded if they: a) focused on other substances or did not directly include alcohol, b) did not include any cognitive assessments, c) were review articles, commentaries, or animal studies, d) did not distinguish between the menstrual cycle phase or only examined one specific menstrual cycle phase. These exclusions were implemented to ensure scientific rigor and focus solely on primary research that allowed for comparisons. After applying these criteria, a final selection of N = 17 studies were included in this review.

Table 2

Screening Criteria

Inclusion Criteria	
Publication language	• English/English translation or
Spanish Journal type	• Peer-reviewed articles
Types of studies	• Diary • Experimental
Participants	• Human • Premenopausal and naturally cycling
Independent Variables:	• Alcohol use (acute or chronic; individuals with or without an AUD) • Menstrual cycle phase (studies must include at least two different phases for comparison)
Dependent Variable:	• Neurocognitive functioning (assessed via tasks, tests, or questionnaires)
Hormonal Measures:	• Explicitly measured hormonal levels or conducted menstrual cycle
Exclusion criteria	• Review articles, commentaries • Animal studies • Studies that did not distinguish between menstrual cycle phases or only examined one specific menstrual cycle phase

Note. Includes specific outlines for inclusion and exclusion criteria of select papers screened for the study.

Data Extraction & Synthesis

For each included study, data was extracted on the following variables: a) neurocognitive domain, b) design, c) sample size and average age, d) population characteristics, e) inclusion of hormonal birth control, f) cycle phase determination, g) cycle phases included, h) alcohol measures, i) neurocognitive test, j) measurement, k) results, l) additional comments. Findings were categorized into three neurocognitive domains: cognitive control, negative emotionality, and incentive salience, based on the neurocognitive domains from Ekhtiari et al. (2020). These domains allow for subsequent analysis of the neurobiological mechanisms underlying AUD and the potential impact of the menstrual cycle.

Results

Table 3 presents a descriptive summary of the studies. N=17 studies were included, with n=10 focusing on acute alcohol consumption, n=5 examining alcohol use in non-clinical populations throughout the menstrual cycle, and n=2 examining use in individuals with an AUD. Of the N=17 studies included, n=9 assessed cognitive control, n=8 examined negative emotionality, and n=5 explored incentive salience. N=5 of the studies were included in both negative emotionality and incentive salience due to the domain overlap of findings. Included studies varied in assessing whether the menstrual cycle moderates the acute effects of alcohol, moderation of alcohol use in non-AUD populations, and moderation in AUD populations. N=13 of the total included studies found neurocognitive differences across the menstrual cycle with alcohol use. Results demonstrate different cognitive factors and reinforcement mechanisms that modulate alcohol use throughout the various phases of the menstrual cycle in AUD and non-AUD populations.

Cognitive Control

N = 9 studies investigated cognitive control. All of the studies included in this sub-section examined how the menstrual cycle moderates the acute effects of alcohol on neurocognitive performance in non-AUD populations. Of the N = 9 studies, n = 4 examined psychomotor performance and decision-making, n = 2 executive function, and n = 3 response inhibition and attentional bias. Regarding menstrual cycle phases, n = 3 included the menstrual week, n = 6 the follicular phase, n = 5 peri-ovulation, and n = 6 the luteal phase. Phase comparison varied between studies, reflected in the results below. N = 7 studies found menstrual cycle-related differences, while n = 2 found no effect.

N = 4 studies assessed the acute effect of alcohol on psychomotor performance and decision-making across the menstrual cycle. Jones & Jones (1976) found that the menstrual cycle did not influence the acute effect of alcohol on free memory recall performance. Linnoila et al. (1980) found slower verbal information processing and worse visual detection during the follicular phase than the luteal phase after acute alcohol ingestion. Brick et al. (1986) found no menstrual cycle changes in sustained attention, working memory, or psychomotor coordination following acute alcohol ingestion. However, findings from Brick et al. (1986) should be taken with careful consideration as they had a small sample size (n=10), with n=6 taking hormonal contraceptives. Mumenthaler et al. (2001) found no overall flight simulation performance differences between the menstrual and luteal phases under acute alcohol ingestion. However, secondary analyses found that reaction response time after acute alcohol in the luteal phase was significantly faster than in the menstrual week, while centerline landing was improved during the menstrual week compared to the luteal phase after acute alcohol ingestion (Mumenthaler et al., 2001).

N = 2 studies focused on executive function. Sanz-Martin et al. (2012) found impaired performance in the Tower of London (TOL) task during the follicular phase in comparison with the luteal phase after acute alcohol ingestion. Task impairment in the follicular phase was accompanied by increased alpha1 EEG activity associated with decreased vigilance and attention (Sanz-Martin et al., 2012). Sanz-Martin et al. (2014) then found that acute alcohol ingestion did not affect working memory in a visuospatial working memory task in the luteal and follicular phases of the menstrual cycle. However, EEG recordings during the visuospatial working memory task again revealed elevated alpha1 activity in the follicular phase in comparison with the luteal phase, reinforcing decreased vigilance and attentional deficits during this menstrual cycle phase (Sanz-Martin et al., 2014).

N = 3 studies investigated response inhibition and attentional bias. Griffith et al. (2023) showed a 1.5x increase in disinhibition using a cued go/no-go task under the acute effects of alcohol during the late follicular phase/peri-ovulation (high estrogen) in contrast to the early follicular phase/menstrual week (low estrogen). The same research group then examined attentional bias using the dot-probe task and found more significant attentional bias in social drinking menstruators toward preferred alcohol (liquor/wine over beer) during the peri- ovulatory phase (high estrogen) compared to the early follicular phase (low estrogen) under the influence of both acute alcohol and the placebo condition, suggesting increased reward anticipation linked to estrogen (Griffith et al., 2024). Griffith et al. (2025) compared menstruators to cisgender men and found that attentional bias for menstruators to alcohol cues is highest during the peri-ovulatory phase, while in men, attentional bias stays consistent across alcohol conditions.

Table 3

Summary of publications included in the systematic

Reference	Literature Review Aim	Neuro cognitive Domain	Design	N* (M age)	Population Characteristics	Between/Within Subject	Hormonal contraception group (+N*)	Cycle Phase Determination	Cycle Phases Included	Alcohol Measure	Neurocognitive Test	Measurement	Results	Additional comments
Linnoila et al. (1980)	Acute effects of alcohol in individuals without an AUD	Cognitive Control	Lab (8 -9 cycles)	10 (NA)	Naturally cycling women	Within-Subjects (Repeated Measures)	Excluded	Self-report + basal body temperature (BBT)	Follicular + Luteal	Active alcohol dose in session	Psychomotor tasks: Subcritical continuous tracking task (CTT), Continuous performance task (CPT), Visual vigilance task (VVT) (Linnoila et al., 1980)	Reaction time & number of correct responses	Slower verbal information processing rate and poorer visual detection performance during the follicular phase.	
Brick et al. (1986)	Acute effects of alcohol in individuals without an AUD	Cognitive Control	Lab (3 sessions - 1 cycle)	10 (21.70)	Premenopausal women, social drinker	Within-Subjects (Repeated Measures)	Included (6*)	Verbal reports	Menstrual, Midycle (days 14-16) + Premenstrual (26-28)	Active alcohol dose in session	Memory for words (Murdock, 1976), task standing steadiness test (Lipscomb and Nathan, 1980), coding-vigilance task (CVT) (Vogel-Sprott, 1979)	Words recalled, body sway, reaction times, coding scores	Alcohol impaired performance on memory-for-words task and standing-steadiness task, but these changes were not dependent on menstrual cycle phase or oral contraceptive use. Coding vigilance performance was best during flow and was not significantly affected by alcohol.	*found no effect
Mumenthaler et al. (2001)	Acute effects of alcohol in individuals without an AUD	Cognitive Control	Lab (2 sessions- 1 cycle)	24 (30.90)	Pilots (early and experienced), women	Within-Subjects (Repeated Measures)	Excluded	Blood samples	Menstrual + Luteal	Placebo + Active alcohol dose in session	Flight simulator task (Mumenthaler et al., 2001)	Errors or deviations from ideal or assigned positions or values, or reaction time & Flight summary score (FSS)	Menstrual cycle phase did not significantly influence the effect of alcohol on overall flight simulator performance. However, secondary analysis found significant impairment in reaction time task during the menstrual test day and landing flight task during the luteal test day.	

Sanz-Martin et al. (2012)	Acute effects of alcohol in individuals without an AUD	Cognitive Control	Lab (2 sessions-1 cycle)	30 (23.33)	Premenopausal women, social drinker	Within-Subjects (Repeated Measures)	Excluded	LH testing + BBT + verbal reports	Follicular + early luteal	Placebo or active alcohol dose in session	Tower of London (TOL) task (Weissenhorn & Duka, 2003)	Scores on problems solved, total movements, incorrect movements, total move score, initiation time, and problem-solving time + EEG recordings	Alcohol impaired performance on TOL, with a greater effect in the follicular phase by solving fewer problems and making more incorrect movements (EEG showed an increase in alpha1, which is associated with decreased vigilance and attention).	
Sanz-Martin et al. (2014)	Acute effects of alcohol in individuals without an AUD	Cognitive Control	Lab (2 sessions-1 cycle)	24 (23.71)	Naturally cycling women, low-risk drinkers	Within-Subjects (Repeated Measures)	Excluded	LH testing + BBT + verbal reports	Follicular + Early Luteal	Placebo or active alcohol dose in session	Visuospatial Working Memory Task (tarea de memoria de trabajo visuoespacial) (Sanz-Martin et al., 2014)	Correct responses + EEG recording	Working memory task didn't change, but EEG activation did change for women who had alcohol, especially in their follicular phase (more alpha1, which indicated less alertness and attention).	
Griffith et al. (2023)	Acute effects of alcohol in individuals without an AUD	Cognitive Control	Lab (2 sessions-1 cycle)	24 (24.04)	Premenopausal women, social drinker	Within-Subjects (Repeated Measures)	Excluded	LH testing + Salivary samples	Early follicular + Ovulation	Placebo + Active alcohol dose in session	Cued go/no-go task (Fillmore & Weafer, 2004)	Response inhibition to no-go targets + reaction time to go targets + Visual analog scales (VAS)	Women displayed a 1.5x increase in the disinhibiting effect of alcohol during the late follicular phase (high E2) vs. early follicular phase (low E2).	
Griffith et al. (2024)	Acute effects of alcohol in individuals without an AUD	Cognitive Control	Lab (2 sessions-1 cycle)	50 (23.52)	Premenopausal women, social drinker	Within-Subjects (Repeated Measures)	Excluded	Salivary samples	Early follicular + Ovulation	Placebo + Active alcohol dose in session	Visual dot probe task (Griffith et al., 2024)	Eye-tracking (gaze duration and gaze fixation), reaction times & alcohol preference (Klatsky et al., 1990)	Attentional bias to alcohol-related cues was greater in ovulation in both sober + intoxicated states, suggesting enhanced reward during ovulation.	
Griffith et al. (2025)	Acute effects of alcohol in individuals without an AUD	Cognitive Control	Lab (2 sessions-1 cycle)	50, of those 25 women (23.60)	Adult social drinkers (men + women)	Within-Subjects (Repeated Measures)	Excluded	Salivary samples	Early follicular + Ovulation	Placebo + Active alcohol dose in session	Visual dot probe task (Griffith et al., 2025)	Eye-tracking (gaze duration and gaze fixation), reaction times, Visual analog scale (VAS) + Timeline follow back (TLFB, Sobell and Sobell, 1992)	Men had consistent attentional bias to alcohol-related cues under both doses, while women showed attentional bias only during the late follicular phase (greater than in men) and under placebo + active dose.	
Charette et al. (1990)	Menstrual cycle influence in non-AUD populations	Negative Emotionality + Incentive Salience	Diary (9 weeks- at least 2 cycles)	82 (21.00)	Premenopausal women, high risk and low risk for alcoholism (high risk= 1 alcoholic	Within-Subjects (Repeated Measures)	Excluded	Daily self-report	Full cycle	Daily alcohol use + drinking motives	Menstrual Distress Questionnaire (MDQ, Moos 1968) + Occurrence of Life Stress scale	Alcohol consumption, menstrual distress and global stress	No evidence for increase alcohol consumption during the premenstrual or menstrual phases in nonalcoholic drinking women, including those at HR for alcoholism Alcohol consumption not related to menstrual cycle, distress symptoms, or global stress.	

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Jones & Jones (1976)	Acute effects of alcohol in individuals without an AUD	Cognitive Control	Lab (2 sessions)	30 , of those 20 women (25.70)	Men and women, moderate social drinkers	Within-Subjects (Repeated Measures)*	Unclear	Self-report	Menstrual, periovulatory, luteal	Active alcohol dose in session	Free-recall verbal memory task (Glanzer, 1977)	Recall score (immediate & delayed recall)	No difference in performance between different phases of the cycle, but faster alcohol absorption rates during the pre-menstrual phase.	*lack of description of women on hormonal birth control. Within-Subject measures
Martel et al. (2017)	Menstrual cycle influence in non-AUD populations	Negative Emotionality + Incentive Salience	Diary (1 cycle)	22 (19.99)	Naturally cycling women	Within-Subjects (Repeated Measures)	Excluded	Daily self-report + daily salivary samples	Full cycle	Daily alcohol use + positive/negative affect	Timeline Follow-Back Interview (Sobell & Sobell, 1994) + Positive and Negative Affect Schedule (PANAS, Watson et al., 1988)	Daily affect + alcohol use	High estrogen on the weekend was associated with increased risk of drinking and binge drinking (especially in the context of low progesterone). Preovulatory and premenstrual increases in drinking. No change in affect.	
Joyce et al. (2017)	Menstrual cycle influence in non-AUD populations	Negative Emotionality + Incentive Salience	Diary (1 cycle) + Lab (2 sessions-1 cycle)	94 (22.90)	Naturally cycling women, low-risk drinkers	Within-Subjects (Repeated Measures)	Excluded	Daily self-report + Salivary samples	Full cycle (saliva samples on days 1-7 + 18-24)	Daily alcohol use + drinking motives	Drinking Motives Questionnaire-Revised State Version (DMQ-R SF, Kuntsche & Kuntsche, 2009)	Number of drinks + drinking motives	Slight increase in drinking to self-medicate for negative affect premenstrually, with drinking to cope peaking in menstrual phase and for social motives in the follicular/ovulatory phases.	
Barone et al. (2023)	Menstrual cycle influence in non-AUD populations	Negative Emotionality + Incentive Salience	Diary (1-3 cycles)	94 (27.37)	Psychiatric outpatient (past-month suicidal ideation), sex-assigned female	Within-Subjects (Repeated Measures)	Excluded	Daily self-report + LH testing	Midfollicular, periovulatory, midluteal, perimenstrual	Daily alcohol use + drinking motives	Drinking Motives Questionnaire (DMQ) (Cooper, 1994; Crutzen & Kuntsche, 2013)	Motives + daily alcohol variables (amount)	Increased likelihood to drink in perivoulatory and perimenstrual phases on weekends. Perimenstrual phase associated with increased drinking to cope, and relatively lower weekend social drinking. (Ovulation = more likelihood of heavy drinking. Perimenstraul = increased heavy drinking but loss of social motivations).	

Note. Abbreviations: AUD = Alcohol Use Disorder, LH = Luteinizing Hormone, BBT = Basal Body Temperature, CDA = Cocaine-Dependent individuals who also abuse Alcohol, DMQ = Drinking Motives Questionnaire, DMQ-R SF = Drinking Motives Questionnaire-Revised State Version, MTVE = Visuospatial Working Memory Task (tarea de memoria de trabajo visuoespacial), EEG = Electroencephalogram, TOL = Tower of London Task, MDQ = Menstrual Distress Questionnaire, POMS = Profile of Moods Questionnaire, MSCEIT = Mayer, Salovey, and Caruso Emotional Intelligence Test, PANAS = Positive and Negative Affect Schedule, CTT = Subcritical continuous tracking task, CPT = Continuous performance task, VVT = Visual vigilance task.

Negative Emotionality

N = 8 studies examined negative emotionality. Of these, n = 2 specifically included individuals with an AUD, examining menstrual cycle variations in emotional regulation, while the remaining n = 6 studies focused on how the menstrual cycle is associated with mood and drinking patterns across the cycle in non-AUD populations. Of the N = 8 studies examining negative emotionality, n = 6 assessed the entire menstrual cycle, n = 1 compared the follicular and the luteal phases (Milijvojevic et al., 2014), and n = 1 compared the menstrual week, peri-ovulation, and the luteal phases (Freitag & Adesso, 1993). N = 6 found a significant association between the menstrual cycle and negative emotionality, while n = 2 found no cycle-related differences. The n = 2 studies that looked specifically at the AUD population did find associations between the menstrual cycle, negative emotionality, and alcohol use.

N = 2 studies examined the role of progesterone in emotional regulation in individuals with an AUD. Milijoveic et al. (2014) examined emotional intelligence in cocaine-dependent individuals who also abuse alcohol (CDAs) compared to healthy controls and found that emotional intelligence scores (specifically around interpersonal emotional regulation) were higher in a high progesterone phase (luteal phase) versus a low progesterone phase (follicular or premenstrual phase) in both controls and CDAs. Hoffman et al. (2024) examined progesterone-to-estradiol ratios in menstruators with an AUD compared to self-reported sex-assigned males and observed that in the menstruating group, the probability of binge drinking was 13% lower in the late luteal phase (high progesterone) compared to the menstrual week, follicular phase, and peri-ovulation (low progesterone phases). Similar results were found for sex-assigned males, with higher progesterone-to-estradiol ratios predicting lower probabilities of binge drinking and any alcohol use (Hoffman et al., 2024).

N = 6 studies specifically focused on drinking motives across the menstrual cycle in non-AUD populations, with findings in both negative emotionality and incentive salience. Charette et al. (1990) found no significant effects on alcohol consumption around the menstrual cycle or related to menstrual distress or global stress. Similarly, Freitag & Adesso (1993) also found no differences throughout the menstrual cycle, mood, and drinking motives. In a more recent study, Kiesner (2012) examined menstrual cycle-related affective patterns, including premenstrual symptom (PMS), mid-cycle negative affect, and non-cyclical patterns, and found that individuals with PMS consumed more hard alcohol. Importantly, individuals with PMS also reported a reduction in negative affective response following alcohol use, which was not observed in individuals without PMS. This suggests that alcohol serves as a negative reinforcer for the PMS group. Martel et al.'s (2017) results primarily relate to incentive salience. However, findings suggest that high progesterone seemed to antagonize the effects of estrogen, driving substance use in the luteal phase related to negative emotionality. However, exploratory analyses of hormones' main or interactive effects on negative affect and distress did not reveal significant effects (Martel et al., 2017). Joyce et al. (2017) found elevated drinking levels through daily diary measures during the follicular and peri-ovulatory phases linked to positive reinforcement, while the luteal phase saw a shift towards self-medication for negative emotions. Barone et al. (2023) additionally found increased binge drinking for social motives during peri-ovulation and a higher likelihood of drinking for coping during the menstrual week.

Together, these studies suggest that social motives drive drinking in high-estrogen phases, and coping motives drive drinking during the luteal phase and menstrual week in the non-AUD population (Barone et al., 2023; Joyce et al., 2017). This highlights the menstrual cycle's dual role in reinforcing drinking behaviors driven by both positive reinforcement and negative reinforcement.

Incentive Salience

N = 5 studies explore incentive salience. These studies were conducted in non-AUD populations and examined how menstrual cycle phases influence reward-related behaviors and motives without testing the interaction with acute alcohol ingestion or AUD diagnosis. All studies in this section examined the entire menstrual cycle and are also included under negative emotionality. Charette et al. (1990) and Freitag & Adesso (1993) found no differences throughout the menstrual cycle. Joyce et al. (2017) found that increased social motives for drinking during the follicular and peri-ovulatory phases were linked to positive reinforcement. The increase in social motives shows greater reward-related drinking motives as estrogen enhances the salience of rewards, increasing motivation to engage in social drinking. High estrogen phases were associated with greater reward sensitivity and reward-seeking behavior. Martel et al. (2017) similarly reported an increased risk of binge drinking during high follicular and peri-ovulatory phases, particularly on weekends, supporting estrogen's role in reward sensitivity. Barone et al. (2023) further observed increased heavy drinking for social motives during peri-ovulation. These studies collectively support the incentive salience theory, linking high-estrogen phases to increased alcohol-related reward-seeking behavior.

Summary of Findings

N = 17 studies were included, with n = 10 focusing on acute alcohol consumption, n = 5 examining alcohol use in non-clinical populations throughout the menstrual cycle, and n = 2 examining use in individuals with an AUD. N = 13 of the 17 studies observed neurocognitive differences in alcohol use across the menstrual cycle, while n = 4 did not (Brick et al., 1986; Charette et al., 1990; Freitag & Adesso, 1993; Jones & Jones, 1976).

The literature was categorized into three neurocognitive domains: cognitive control, negative emotionality, and incentive salience. N = 9 studies assessed cognitive control, with n = 7 finding menstrual cycle differences. More impaired cognitive control, including reduced response inhibition, attention, and vigilance, was reported during the follicular and peri-ovulatory phases when estrogen was higher. N = 8 studies assessed negative emotionality, with n = 6 finding associations between the menstrual cycle and negative mood, particularly with heightened negative emotionality in the luteal phase, when progesterone is higher. In those with an AUD, high progesterone seemed to be protective against binge drinking and aided in emotional management. N=5 studies explored incentive salience, with n=3 showing findings that align with higher reward sensitivity and reward responsiveness during the follicular and peri-ovulatory phases when estrogen rises.

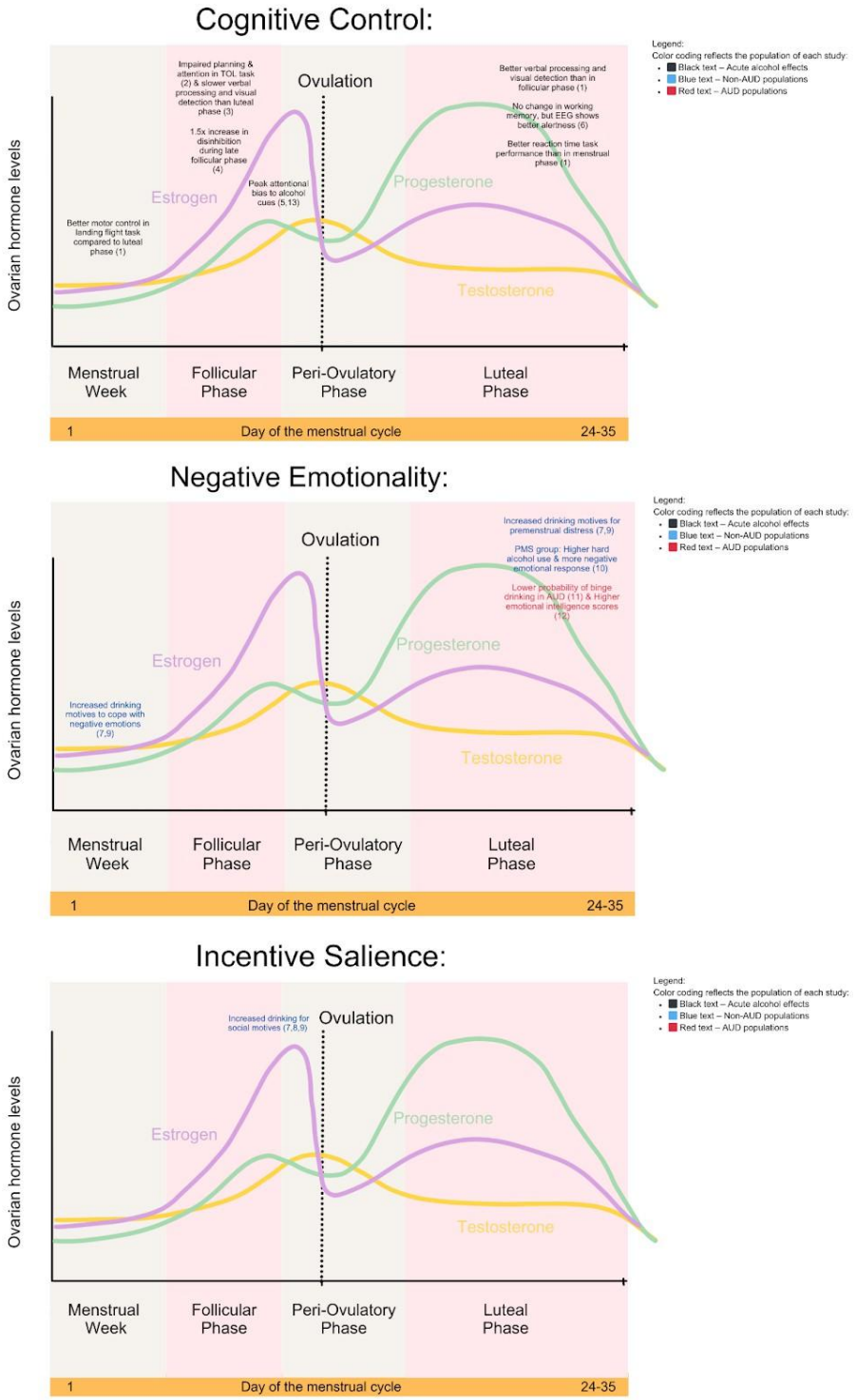
Discussion

This review examined how menstrual cycle phases interact with neurocognitive functioning related to acute alcohol use, general use in non-AUD populations, and those with an AUD. N = 17 studies were included, with n=13 reporting associations between the menstrual cycle phase and neurocognitive functioning within the context of alcohol use. The other, n = 4 studies did not report such associations (Brick et al., 1986; Charette et al., 1990; Freitag & Adesso, 1993; Jones & Jones, 1976). However, these findings should be interpreted cautiously, given methodological findings such as small sample sizes, less rigorous hormonal verification methods, and between-subject samples instead of repeated measure designs. Across studies, findings suggest that alcohol-related cognitive impairments, such as slower verbal processing, worsened problem-solving, and greater disinhibition, may be more pronounced during the follicular and peri-ovulatory phases (Griffith et al., 2023; Linnoila et al., 1980; Sanz-Martin et al., 2012). These effects may be amplified in individuals with an AUD. However, comparative studies with AUD populations remain scarce. Reward-related processes also appear sensitive to the menstrual cycle phase. Studies in non-AUD samples report heightened reward sensitivity and increased social drinking motives during high-estrogen phases, including the follicular and peri-ovulatory phases (Barone et al., 2023; Joyce et al., 2017; Martel et al., 2017;). These findings may suggest increased incentive salience of alcohol-related cues during these phases. However, further research is needed to establish whether similar patterns emerge in individuals with AUD.

In contrast, the luteal phase, particularly the late luteal phase associated with premenstrual syndrome, was linked to increased negative emotionality and greater motivation to drink for emotional regulation in non- AUD populations (Barone et al., 2023; Joyce et al., 2017; Kiesner et al., 2012). Notably, in individuals with an AUD, higher levels of progesterone were associated with improved emotional regulation and reduced likelihood of binge drinking, suggesting the possible modulation role of progesterone in AUDs (Hoffman et al., 2024; Milijoveic et al., 2014). Figure 3 illustrates the neurocognitive shifts across the menstrual cycle, organized by domain and study aim described in this review. While most included studies focused on the acute effects of alcohol in non-AUD populations, the findings underscore the importance of considering menstrual cycle phases in future research on the neurocognitive mechanisms that underlie vulnerability to AUD and in prevention strategies that target menstruators.

Figure 3

Neurocognitive Changes Across the Menstrual Cycle by Neurocognitive Domain



Note. Each numbered reference corresponds to a study that contributed to the findings presented in the figure. Legen indicates the different aims and population groups for the study cited.

Citations are as follows: (1) Mumenthaler et al., 2001, (2) Sanz-Martin et al., 2012, (3) Linnoila et al., 1980, (4) Griffith et al., 2023, (5) Griffith et al., 2024, (6) Sanz-Martin et al., 2014, (7) Joyce et al., 2017, (8) Martel et al., 2017, (9) Barone et al., 2023, (10) Kiesner, 2012, (11) Hoffman et al., 2024, (12) Milivojevic et al., 2014, (13) Griffith et al., 2025.

Comparative Analysis of Neurocognitive Changes Across the Menstrual Cycle

Findings from this review suggest that alcohol consumption may increase during menstruation, potentially as a coping strategy for managing negative affect (Barone et al., 2023; Joyce et al., 2017). Additional general research on substance use shows an increase in cannabis, alcohol, and nicotine/tobacco use for menstrual pain management (Sugarman et al., 2025). These findings align with the self-medication theory, which posits substance use increases premenstrually and during the menstrual week to cope with negative affect (Joyce et al., 2021). Additionally, menstrual pain severity was also associated with greater substance use, suggesting a possible explanation of alcohol serving as a pain-management strategy during the menstrual week (Sugarman et al., 2025).

In the follicular phase, rising estrogen levels are associated with increased drinking, particularly for social motives and heightened reward-seeking behavior (Barone et al., 2023; Griffith et al., 2023; Joyce et al., 2017; Martel et al., 2017). This phase also appears to be characterized by impairments in cognitive control, including decreased attention, reduced vigilance, and increased disinhibition (Griffith et al., 2023; Griffith et al., 2024; Griffith et al., 2025; Sanz-Martin et al., 2012; Sanz-Martin et al., 2014). These findings are consistent with broader evidence demonstrating heightened reward sensitivity, decreased alertness, and reduced emotional reactivity outside of the context of alcohol during the follicular phase compared to other phases of the menstrual cycle (Cohen et al., 2022; Pilarczyk et al., 2019; Sakaki & Mather, 2013). In nicotine research, the follicular phase is also associated with increased motivation for substance use and reward enhancement during use (Giner et al., 2024). The reward-sensitivity theory poses a potential explanation as to why we may see increases in substance use-seeking behavior during the follicular phase and into the peri-ovulatory phase (Joyce et al., 2021).

The peri-ovulatory phase, marked by the peak in estrogen and a subsequent surge of progesterone, is generally characterized by greater sensitivity to reward and impulsivity (Faraji-Rad et al., 2013; Sakaki & Mather, 2013). Findings demonstrate an increased tendency to drink for social motives and greater attentional bias to alcohol cues (Barone et al., 2023; Griffith et al., 2023; Griffith et al., 2024; Griffith et al., 2025; Joyce et al., 2013). Similar patterns have been observed for nicotine, cocaine, and amphetamines, suggesting that greater reward-seeking behavior during peri-ovulation may be generalized across substances (Evans et al., 2002; Giner et al., 2024; Justice et al., 1999). These findings suggest the need for targeted prevention strategies that address menstrual cycle fluctuations and risk for the development of AUDs.

In the luteal phase, when progesterone levels peak, alcohol-related cognitive effects differ between individuals with and without AUD. For example, during alcohol intoxication, non-AUD individuals show increased alertness and attention and better cognitive performance (Sanz-Martin et al., 2012; Sanz-Martin et al., 2014). These findings align with broader research showing increased baseline levels of alertness, engagement, and vigilance during the luteal phase in non-AUD samples (Cohen et al., 2022; Li et al., 2022). In addition, this review found increased drinking in non-AUD populations to cope with negative affect during the luteal phase (Barone et al., 2023; Joyce et al., 2017). Drinking to cope is consistent with the self-medication theory, and findings on PMS further strengthen

this theory as individuals with premenstrual syndrome are more inclined to drink for self-soothing (Gudipally & Sharma, 2025; Khantzian, 1997; Joyce et al., 2021; Kiesner, 2012).

Comparable data on alertness and vigilance in those with an AUD is currently lacking. However, findings from this review demonstrate that high progesterone is associated with greater emotional regulation as measured through the MSCEIT, as well as a 13% decrease in binge drinking probabilities compared to other stages of the menstrual cycle (Hoffman et al., 2024; Milivojevic et al., 2014). This indicates a potential protective effect of progesterone in individuals with an AUD. The difference in luteal phase effects between non-AUD and AUD populations should continue to be explored. Additional substance use research on nicotine suggests that withdrawal symptoms are enhanced during the luteal phase (Giner et al., 2024). Whether the same is true for alcohol and those with an AUD remains unexplored.

Impact of Endogenous Estrogen and Progesterone on Neurocognitive Functioning

Neurocognitive changes appear to be primarily driven by estrogen and progesterone, allowing for more generalizable conclusions on alcohol-related cognitive impairment. Estrogen is linked with heightened reward responsiveness, while progesterone is associated with increased attention and vigilance but attenuates feelings of reward (Sakaki & Mather, 2012). The review's findings align with these patterns, suggesting increased reward- seeking behavior in high estrogen phases and increased alertness in high progesterone phases (see Figure 3).

Interestingly, endogenous progesterone may have a protective effect on menstruators who have an AUD (Hoffman et al., 2024; Milijoveic et al., 2014). Both studies suggest that progesterone-to-estradiol ratios could predict and shift substance use behavior. Specifically, Hoffman et al. (2024), who additionally tested sex- assigned males, also found that higher progesterone-to-estradiol ratios were related to lower probabilities of binge drinking and alcohol use. Support from nicotine research further highlights the potential of progesterone- to-estradiol ratios in predicting substance use (Schiller et al., 2012). It would be of value for future research to measure hormonal levels via salivary or blood samples to better understand the influence of ovarian hormones on substance use. Many studies in this review relied on self-reported cycle data, so findings should be considered with this in mind. Precise hormonal measurement, alongside neurocognitive data, would enhance our understanding of the biological links between neurocognition and the menstrual cycle in AUD.

Implications for Alcohol Use Disorder

The majority of the included literature focused on the effects of acute alcohol consumption on neurocognitive functioning (n = 10) or alcohol use in non-AUD populations across the menstrual cycle (n = 5), with relatively few studies examining menstrual cycle influences on neurocognition in individuals with an AUD (n = 2). Research suggests that the effects of acute alcohol on cognitive functioning vary throughout the menstrual cycle. Increased deficits in cognitive control and greater social motives for drinking are found in the follicular phase, potentially due to heightened reward- seeking behavior driven by fluctuations in dopamine, GABA, and glutamate (Griffith et al., 2023). During the luteal phase, while there appears to be better emotional regulation, alcohol use is often used to cope with negative emotionality. Progesterone's modulation of GABAA receptors may influence this, producing anxiolytic and anti-stress effects that aid emotional regulation (Fox et al., 2004). In individuals with premenstrual dysphoric disorder (PMDD), characterized by heightened negative affect, the typical rise in GABAA levels during the luteal phase is absent, which may contribute to alcohol being used to self-medicate negative affect

and emotions. While these findings provide insight into alcohol use patterns across the menstrual cycle, more research is needed to determine whether the acute effects of alcohol translate into prolonged alcohol use or the development of an AUD.

While most studies focused on acute alcohol use in non-AUD populations, n=2 studies specifically examined individuals with an AUD. One of the studies compared those with an AUD to those without an AUD (Milivojevic et al., 2014), while the other compared menstruators with an AUD to self-reported sex-assigned males (Hoffman et al., 2024). Findings in the AUD population suggest a lower probability of binge drinking during the luteal phase, possibly due to the protective role of endogenous progesterone in emotional regulation (Hoffman et al., 2024; Milivojevic et al., 2014). These findings demonstrate the importance of considering the hormonal state of understanding vulnerability to binge drinking and relapse. Existing research on nicotine, cocaine, and amphetamines shows the potential of menstrual cycle-informed treatments in optimizing recovery (Evans et al., 2002; Justice et al., 1999; Giner et al., 2024). Similar clinical interventions should be conducted for those with an AUD to understand better how hormonal fluctuations impact substance use behaviors and the potential efficacy of sex hormone-specific treatment protocols.

In addition to informing treatment, the findings of this review have important implications for the prevention of AUD. This is especially important when looking at the lens of "telescoping," wherein women progress more quickly from initial alcohol use to alcohol use disorders, strengthening the importance of effectively informing prevention programs that address the unique challenges faced by menstruators (Carroll et al., 2016). Menstrual cycle-informed strategies could help identify specific moments of heightened vulnerability, like the follicular phase, where individuals may be more susceptible to impulsive, reckless, or reward-driven drinking. Tailoring psychoeducation and early intervention strategies to align with the hormonal patterns and findings from this review could help reduce risky drinking behavior before it escalates into an AUD.

Clinical and Practical Implications

Menstrual cycle-informed prevention strategies offer a potentially promising and underexplored avenue for reducing alcohol use disorders. Integrating menstrual cycle-informed psychoeducation into public health campaigns and digital health tools could empower menstruators to make more informed decisions on their substance use and aid in the prevention of the development of AUD. For example, current digital health apps that track the menstrual cycle and alcohol consumption could provide substance-use risk assessments and psychoeducation based on the cycle phase. Current menstrual cycle apps already offer support regarding mental health symptomatology, particularly around the premenstrual phases when mental health symptomatology is low (Funnell et al., 2024). App users express an instilled sense of empowerment and benefit through app-based supplementary psychoeducation that helps monitor, educate, self-help, and diagnose during low symptomatology (Funnell et al., 2024). Similar support could be offered for alcohol and substance use, providing awareness of potential impulsive decisions and reward-based behavior or shedding light on the desire to use substances to cope with negative effects.

Additionally, workshops and support groups could also educate individuals on hormonal influences to craving and potential relapse. Given that a significant amount of individuals with an AUD recover without formal treatment (Tuithof et al., 2016), integrating this knowledge into the public domain, whether through online resources, digital

health tools, or community-based interventions, may enhance self-regulation and recovery outcomes. Preventative efforts that take into account menstrual cycle changes to alcohol use could potentially reduce stigma, create more inclusive and personalized support, and deter risky alcohol behavior before escalation.

While most current findings are based on non-AUD populations in clinical settings, they may still provide a valuable foundation and blueprint to develop menstrual cycle-informed approaches. For instance, the follicular and peri-ovulatory phases were found in this review to be associated with increased impulsivity and reward-seeking behavior. Clinicians can incorporate this knowledge into treatment by addressing impulsivity management through cognitive behavioral therapy and dialectical behavioral therapy techniques and educating individuals on increased relapse risks during high-estrogen phases. Cognitive behavioral therapy has shown promise in improving impulsivity-related behaviors, which could be used at higher-risk phases such as the follicular and peri-ovulatory (Loya et al., 2023). Dialectical behavioral therapy and acceptance and commitment therapy also show efficacy in addressing impulsivity (Aguilar-Yamuza et al., 2024). Furthermore, the luteal phase has been associated with increased negative affect, highlighting the need for targeted emotional regulation tools and strategies such as mindfulness-based stress reduction techniques. Mindfulness meditation and mindfulness-based stress reduction techniques have been shown to improve emotional regulation and reduce substance use and could be reinforced during this menstrual cycle phase (Garland & Howard, 2018; Tang et al., 2016). Future research should examine whether these menstrual cycle-related patterns also apply to individuals with an AUD and whether the interventions outlined above accordingly address the challenges faced by menstruators.

Gaps in the Literature

Several key gaps in the literature were identified. Most studies focus on the acute effect of alcohol on neurocognitive functioning rather than on longitudinal studies in AUD populations. Research on the long-term consequences of alcohol use across the menstrual cycle remains limited and should be prioritized to provide better recommendations to those with an AUD. Additionally, studies tend to examine specific menstrual cycle phases, often due to methodological constraints or key interest in a particular hormone. More studies examining the full spectrum of the menstrual cycle would give greater insight into neurocognitive function in its entirety. Standardized hormone measurements are also lacking, with many studies relying on self-reported cycle phases instead of direct hormonal assays. This may introduce confounds related to stress or ovulation irregularities (Schliep et al., 2015). While reviews like Joyce et al. (2021) compare addictive behaviors across the menstrual cycle, there is also a lack of experimental research comparing the effects of the menstrual cycle on neurocognition amongst different substances, such as cocaine, nicotine, amphetamine, and alcohol, which have all been shown to have some level of impact with the menstrual cycle (Evans et al., 2002; Giner et al., 2024; Justice et al., 1999). Clinical research on sex hormone and menstrual-cycle-informed treatment efficacy and success is also needed.

Limitations and Future Directions

Methodological inconsistencies are a significant limitation of this review. The lack of standardized approaches for measuring and naming menstrual cycle phases makes comparison between studies challenging. Future research should adhere to standardized guidelines and best practices on hormonal validation and reporting accuracy (Hampson, 2020). Specifically, studies should follow Schmalenberger et al.'s (2020) menstrual cycle phase clarification guidelines to ensure consistency and comparability. The temporal gap between studies cited is another important

limitation. Several studies included were conducted over 30 years ago. Given the considerable advancements in menstrual cycle research, knowledge, and tracking, older studies' findings should be interpreted cautiously (Jukic, 2021). This is of note as the n = 4 studies that found no substance use changes throughout the menstrual cycle were written over 30 years ago and have methodological concerns such as small sample sizes, less rigorous hormonal verification, and between subject samples (Brick et al., 1986; Charette et al., 1990; Freitag & Adesso, 1993; Jones & Jones, 1976). However, the aforementioned n = 4 studies were included despite these concerns as they fell within the inclusion criteria and help to provide a comprehensive overview of the evidence on the subject. N = 2 studies also employed between-subjects rather than within- subjects design, making it difficult to account for individual variability in hormonal fluctuations (Freitag & Adesso, 1993; Kiesner, 2012). Subsequent research should ensure a within-subject (repeated measures) design to capture the effects of acute alcohol on neurocognition throughout the menstrual cycle as well as neurocognitive deficits associated with the menstrual cycle in individuals with an AUD.

Future research should examine the entire menstrual cycle to provide more comprehensive data on alcohol's neurocognitive effects across all phases. Additional studies explicitly focusing on individuals with an AUD are essential to understanding neurocognitive shifts associated with chronic alcohol use and refining treatment and cessation strategies similar to those developed for nicotine. Future research should also continue examining the role of progesterone and its protective effects against binge drinking, ensuring the use of hormonal assays for clear comparisons. Given the widespread use of hormonal contraception (Daniels & Mosher, 2013), future studies should further investigate the impact of exogenous hormones on potential treatment, as hormonal contraception can amplify estrogen's effects (Sarkola et al., 1999). Exogenous hormones (particularly progesterone) show promising potential for treatment, and future clinical research should explore their potential in AUD cessation and treatment (Fox et al., 2024). This is especially pertinent given the findings from Milivojevic et al. (2014) and Hoffman et al. (2023), who found that progesterone in non-menstruators could also shift emotional management or were associated with different probabilities of binge drinking. The use of progesterone-to-estradiol ratios in those who do not menstruate, as well as the use of exogenous progesterone for treatment, could offer potential insight into risk prediction and new avenues for treatment.

Conclusion

This literature review highlights the menstrual cycle's impact on neurocognitive functioning surrounding alcohol use. Studies included in this review examined one of three aims: 1) how the menstrual cycle moderates the acute effects of alcohol on neurocognitive processes in individuals without an AUD, 2) how the menstrual cycle moderates alcohol use in non-AUD populations, and 3) how the menstrual cycle influences neurocognition in individuals with an AUD. Of the 17 studies reviewed, 13 reported found menstrual cycle shifts in neurocognition with alcohol use. While acute alcohol effects appear to vary throughout the menstrual cycle, limited research exists on how these hormonal fluctuations affect the development and progression of AUD. The potential protective role of progesterone and the impact of estrogen on relapse vulnerability through reward- seeking behavior demonstrates the need for further investigation into how the menstrual cycle influences alcohol-related behaviors.

Future research should continue to examine menstrual cycle-informed approaches for optimizing prevention strategies for AUD as well as treatment strategies for menstruators with AUD. Digital health tools and general psychoeducation could empower menstruators to make more informed decisions on their substance use and aid in substance use escalation prevention. Clinicians and treatment centers should consider implementing the menstrual cycle into treatment and prevention interventions and integrating menstrual cycle- informed psychoeducation into public health campaigns.

Conflict of Interests

The authors declare no conflicts of interest related to this work.

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The Construction of Diasporic Identity Through Cultural Expression: The Case of Syrians in the Netherlands

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Abstract

This thesis explores how displaced Syrians in the Netherlands reconstruct their identity through cultural expression. While much of the existing literature on the Syrian diaspora limits its focus on descriptions of displacement, this study shifts attention to the creative practices, such as music, dance, visual arts, and culinary traditions that shape diasporic identity. Drawing on narrative interviews with nine Syrian participants, both artists and non-artists, the research outlines how cultural expression serves as a constitutive means to reconstruct identity in exile. The discussion is structured around three central themes: the evolving concept of home, the role of community and cultural expression in establishing a sense of belonging to the Netherlands, and how those influence the reconfiguration of Syrianness in exile. Findings show that Syrianness is not a static identity, but a contextually responsive construct achieved through artistic means.

Keywords

Syria, identity, Syrianness, diaspora, home, homeland, cultural expression

Introduction

Art has always accompanied destruction. In the case of Syria, artistic expression has not only documented revolution, but also played a significant part in the reconstruction of identity in exile (Masri Zada, 2022). The Arab Spring offers an exemplification of this relationship. Following the arrest and torture of children who scrawled "الشعب يريد إسقاط النظام" ("the people want the fall of the regime") on their school wall in Daraa, protest art and graffiti became central tools of resistance against the Assad regime, especially for Syrians in exile (Erlich & Chomsky, 2016). This historical moment showcases the connection between creative expression and identity formation, particularly in times of crisis. Art appears as a constitutive medium for Syrian identity: popular culture allowed Syrians to recognise their heritage "in a way that felt relevant to their lived experiences in exile" (Hall, 2021, p. 270). This process of cultural expression manifested into multiple forms, with different artistic practices facilitating identity reconstruction in various ways (Masri Zada, 2022).

As protests escalated into civil war, Syrians in exile turned to art practices as a means to navigate and preserve their identity (Martin, 2018). Dance, for instance, has remained an essential constituent of Syrian cultural expression throughout the Arab uprisings and the prolonged conflict that followed. In the early days of the

revolution, protestors performed the *dabke* (a traditional Levantine dance) over a defaced portrait of (now former) president Bashar al-Assad, marked with a red cross, to express their opposition to his regime. For the past fourteen years, artistic expression has functioned not only as a tool of political dissent, but also as a means of collective mourning of Syrian victims, and a reminder of national unity, especially for Syrians who left their homeland (Silverstein, 2012). Art actively contributes to the reconstruction of Syrian identity in exile, allowing Syrians to maintain cultural continuity while adapting to new socio-political contexts. Through this perspective, identity is not just reflected in cultural expressions, but rather is in part created by them (Hall, 2021).

As such, this research is especially concerned with the conceptualisation of Syrian identity by Syrians living specifically in the Netherlands. While existing literature on Syrian displacement focuses on political and economic integration, fewer studies have explored how identity is actively shaped in exile through cultural expressions (Chatzipanagiotidou & Murphy, 2021; Masri Zada, 2022). Limited studies have been conducted on Syrian diasporic communities in Germany and Turkey, but the Dutch context remains underexplored. Such a context is worth exploring further because the country has hosted a significant amount of Syrian refugees since the start of the civil war in 2011. To address this gap, this thesis considers the role of cultural practices in the process of identity formation of both artists and non-artists. The following research question will guide this research: *How do displaced Syrians construct their diasporic identity through cultural expression in the Netherlands?*

This paper is structured as follows: to begin, an overview of the theoretical considerations that informed this research is presented, followed by a thorough description of the methodology employed in the study. Ethical considerations, specifically in terms of the sensibility of this thesis' topic, are discussed. In attempting to answer the research question, the discussion is organized into three sections.

The first section analyses Syrians' feeling of belonging to the Netherlands, responding to the question: *what is home?* The cultural elements that construct such a "home" are discussed in the second portion of the discussion. Lastly, in the third segment, the process of identity reconstruction is traced along the lines of cultural expression. Ultimately, the paper finds that a unified, singular Syrian identity does not exist. Instead, identity in exile is layered, and actively constructed through art. In highlighting the dynamicity of the relationship between culture and identity formation, this research aims to offer a more nuanced account of the Syrian diaspora: one that celebrates Syrian creativity. Limitations of the study, especially surrounding generalisability of the findings, and suggestions for further research are considered in the last portion of this contribution.

Theoretical Framework

The process of identity formation is not about simply recovering a lost past that, once found, will provide a permanent sense of self. Instead, identity is formed through the ways we interpret and position ourselves within the narratives of the past (Hall, 2021). Identity is shaped by both the past and the future; in that sense, it is not a fixed essence that exists beyond time, place, history, or culture. For that reason, Hall suggests that identity should be perceived and studied as a continuous process of production. In his words as "a matter of becoming and being" (2021, p. 259).

Understanding identity as fluid and evolving is particularly relevant in examining the experiences of displaced Syrians, who must navigate the intersections of multiple cultural influences. Displacement itself is a space for

cultural transformation (Grechi, 2019). The struggle for cultural continuity is reflected in the way displaced Syrians engage with their identities, often deploying artistic expressions to express their sentiments. Masri Zada explains that displaced Syrians actively try to reclaim their identity by engaging in creative practices that allow them to redefine their Syrianness: "by choosing to survive and not go back to Syria (..) my response as an artist, scholar, and activist became reflected in my own artistic practice and scholarly work. My art practice is a response, a healing process, to the despair and guilt I feel from being distant from the crisis" (2022, p. 1).

To better grasp Masri Zada's description of displacement, this thesis employs Safran's (1991) interpretation of "diaspora" throughout this research. Safran defines a diasporic community as one composed of people who "have been dispersed from a specific original centre to peripheral places" and who "retain a collective memory, vision, or myth about their original homeland" (p. 86–87). Such a definition can be applied to Syrians who sought refuge from the revolution in the Netherlands. The existence of a diasporic community is highly dependent on the relationship between its members and their homeland (Stock, 2021).

Involved in the process of identity construction is a sense of "unhomeliness", an estrangement from both the place of origin and the host country (Nyman, 2009). The diaspora inherently questions the fixed nature of identity by showing that "home" and "homeland" are not stable entities for any diasporic subject (Nyman, 2009, p. 24). In other words, notions of "home" are inherently fluid across space and time within diasporic communities (Stock, 2021). In such settings, the fabrication of "home" can be directed towards multiple physical localities or remembered through symbolism. The layeredness of the notion of "home" makes such a concept the appropriate tool to study diasporic experiences. For instance, Syrian scholar Oudai Tozan, when reflecting on his personal experience with forced migration suggests that he cannot depict Syria as home because its unpredictability and precarious political conditions do not allow him to imagine a future for himself in the country. In his analysis, Syria is interpreted as a "home that doesn't feel like home" (Tozan, 2025, p. 9). The political, social and economic stability of one's home are identified in this research as indicators of safety, which in turn influence one's definition of "home".

Researchers have argued that diasporic identity is constructed through the physical and emotional dislocation that results from being "here" but feeling "there" (Chiu, 2003). To counter the common binary view of diaspora as belonging either "here" or "there". Chiu introduced the concept of transexperience as an explanatory model and applied it to Chinese artists living outside of the mainland. Transexperience is a method of "artistic creation" that describes the process of transforming one's cultural identity by engaging with the homeland as both a residual and evolving influence on cultural identity. In sum, this concept avoids the limitation of traditional understandings of the diaspora, which posit the homeland in the past and the new place of settlement in the present. In doing so, it takes equal account of both cultures' influences on the formation of identity in exile. As this approach takes equal account of both culture's influence on the formation of identity in exile, it will be useful to analyse the Syrians' diasporic experiences in the Netherlands.

This negotiation between past and present, between here and there, is evident in how cultural products, especially dance, music and art, become tools for identity reconstruction among diasporic communities. Cultural products function as a connecting site, as an object of relief from the pain that accompanies forced migration and its consequent detachment from national identities (Nititham, 2016, p. 105). As Hall (2021) notes, identities have their histories, which shape the process of redefining identity. Artists like Bob Marley or Burning Spear employed

reggae music to construct a new identity, one rooted in the old African past, but inherently intertwined with contemporary Caribbean struggles (p. 264). If we extend such thought to Syrians living abroad, we can explore how the history of Syrian identity manifested into art practices. To do so, we need to define art's cultural meaning. A cultural meaning is the shared interpretation of an object or event that is evoked in people as a result of their similar life experiences (Strauss & Quinn, 1997). This categorisation implies that a different interpretation of such an object or event would be evoked in people situated in different social contexts. Following this definition, we can assume that Syrian music, dance and art all have a shared cultural meaning recognisable by Syrians in the Netherlands, which might differ from the cultural meaning art holds in Syria.

Moreover, Dimaggio and Fernandez-Kelly (2015) suggest that creative behaviour is actively shaped by external societal elements, rather than being driven simply by personal interest. Immigrants use art to assert their identity and claim their spot in the host community, which inevitably entails the pressure felt by the migrant to conform to their host society. This raises important questions, such as: How do Dutch or international spectators influence how Syrians perform their identity? Does context create a pressure to conform to certain representations of Syrianness? To answer such questions, we can draw parallels from other cases where cultural classifications have been actively challenged and reshaped. For instance, Burdsey (2006) describes the experiences of young British-Indians with the concepts of home and identity through sport. On the one hand, supporting the English football team allows British-Asian kids to connect with mainstream British culture, and assert their social belonging within the United Kingdom. On the other hand, their loyalty to India's cricket teams signals a connection to their cultural background. According to Burdsey, supporting a national team is not simply a personal preference but rather is a choice embedded in social contexts that impose pressures to conform to specific representations of identity — either as British or as Indian. The children's participation in these cultural practices exemplifies how external societal influences shape their ways of performing their identities. In Burdsey's example, diasporic identity is presented as fluid in nature (p. 24). Consistent with this case, this research assumes that Syrians perform their identities through cultural expression under the influence of Dutch society and Syrian traditions.

Ultimately, this thesis assumes that identity in exile is not uniform. This is because any diasporic location is a "liminal space of identity, a space where various transnational forces, both local and global, remould identity" (Nyman, 2009, p. 22). The Netherlands becomes the arena in which the diasporic subject reconstructs itself and their "Syrianness". The diaspora challenges conceptualisations of a uniform national identity by breaking down monocultural assumptions of what it means to be a Syrian in exile. In other words, Syrians in the Netherlands are not simply preserving an unaltered Syrian identity but actively reshaping it in response to their new environment. Through the presented literature, I will investigate the reconstruction of Syrian identity in exile as an active process of negotiation.

Methodology

The purpose of this study is to identify the role played by cultural expression in reconstructing Syrian identity in the Netherlands. However, the concept of identity is inherently fluid. How can one attempt to describe the phenomena of identity construction, when the very concept of identity is contested and lacks a clear definition? In the everyday experiences of my interviewees, the notion of Syrianness and its characteristics are contested and

redefined continuously. For the sake of answering the research question in a coherent manner, I opted to operationalise "identity" as the perception of one's self through their relation to the homeland and cultural expression. The latter refers to all artistic and creative expressions undertaken by Syrians, which can include dance, music, visual art, etc. These are considered tools of identity reconstruction.

This research was conducted through a narrative method. As such, I approached conversations about identity construction through interviews in which "the researcher should not steer the conversation, but instead let the participants tell their stories in their own words, at their own pace" (Thunberg, 2022, p. 713). Narrative interviews rely on the participants' willingness to discuss their experiences with the researcher. The reason I opted for such a method was the hope that it would allow interviewees to detail their experiences with the diaspora without being nudged in one direction or the other. Each of the nine interviews was prefaced by a short introduction to the methodology; at this time, the participants were also notified of their right to decline any question that made them uncomfortable, or withdraw consent altogether at any point during the research. The participants were thoroughly informed about their ability to refrain from answering questions. This served to avoid re-traumatisation when recounting past traumatic events related to the Syrian war (Silverio et al., 2022). All nine interviews lasted approximately forty minutes, and were recorded and stored on my personal iCloud for protection and privacy reasons. I utilized thematic analysis to examine the data retrieved, aiming to highlight convergence or divergence in the respondents' experiences. Thematic analysis was chosen as it is a descriptive method of "reporting patterns within data" that simultaneously allows for flexibility and academic rigor (Castleberry & Nolen, 2018, p. 808). My coding strategy mirrored the scholars' suggestions: I compiled, disassembled, reassembled, interpreted and drew conclusions from the nine interview transcripts with the assistance of Atlas.ti. This software proved to be especially helpful in generating maps of code clusters. By mapping my data as such, I was able to observe connections among codes that were not readily apparent (p. 812). Only one round of coding was performed, due to the limited number of interviews conducted for this research. The total number of codes amounted to sixty-one; out of the latter, I formed four themes, namely "definitions and depictions of home", "the role of community", "the role of cultural expression" and "reconstructed Syrian identity", which loosely correspond to the outline of this research's finding section. The questions I repeatedly posed myself through this process are inspired by Castleberry and Nolen's suggestions: what is the quality of the data included in this theme? What are the limits of this theme (what does it include and exclude)? Is there enough reliable data within the transcripts to support this theme and my consequent claim? Do my themes, altogether, lack or show abundance of coherence? (p. 810). Altogether, these reflections allowed me to demonstrate the consistency between the raw data and the conclusions I deducted from the above-mentioned themes.

Furthermore, the emotional and political character of my research topic informed every step of the data collection process. When dealing with sensitive matters, it is important the researcher adopts a reflexive standpoint on the methodology chosen (Thunberg, 2022). For that reason, I paid particular attention to the initial reactions of my interviewees to the questions I posed. In the early stages of this research, I had prepared a set of twenty questions that delved deep into the effects of the Syrian crisis onto the participant. I mistakenly assumed that by inquiring about the emotional distress caused by the war, I would be able to draw a clearer picture of the factors influencing the process of identity for displaced Syrians. Although respondents were willing to discuss their experiences with the civil war, I soon realised that such questions would redirect the scope of my research away from a description of identity construction, and towards one of violent trauma. That is not what I intended to narrate

with this research. Thereafter, I reformulated my questions to match my original objective: contribute to the analysis of the Syrian diaspora through a celebration of its creativity, its cultural richness, rather than another depiction of violence and horror.

As noted by Wadams and Park (2018), Western bias can significantly distort the authentic representation of non-Western experiences in qualitative research. Researchers who apply Western paradigms in their analyses, without a contextual understanding of the research topic, risk misrepresenting the participants' lived experiences. Therefore, my intention before conducting this research was to fully immerse myself in the subject, as I was faced with the challenge of accurately and objectively reporting accounts of a reality – that of the Syrian civil war – I had never personally experienced before. In preparation for this research, I attended celebrations for the liberation of Syria from dictatorship. I briefly attended a commemoration for the start of the Syrian revolution, which took place in Amsterdam's Dam Square. I partook in the film screening *For Sama*, Waad al-Kateab's tribute to her daughter and home country. The movie captured the raw human experience of war, love, and survival in Aleppo. The screening created a space for Syrians living in the Netherlands to reimagine a future for Syria, and to openly share stories of resilience. Lastly, I engaged in countless conversations — outside of the interviews conducted for the purpose of this research — with Syrians online to truly understand their experience with displacement. The purpose of these exchanges was to delve deeper into the implications of forced migration, and especially to outline the role played by art in relieving the pain caused by such a process. By no means do I believe to be capable of comprehending the Syrian struggle through my presence at these events. Nonetheless, I found it crucial to attend these celebrations, in order to begin grasping the severity and emotional toll of my research topic.

I came into contact with most of my interlocutors through these events. I approached as many attendees as possible, introducing myself, the research, and inquiring about their willingness to contribute to the project. Other participants are artists active in the Netherlands, found through their exhibitions at contemporary art museums in Amsterdam, or their webpages. The sample used was thus a snowball sample, as I recruited participants primarily based on geographical convenience. I interviewed six men and three women born in different regions of Syria, whose ages ranged from 25 to 35 years, and who had settled in the Netherlands after the start of the Syrian civil war in 2011. Out of the nine interviewees, only two were not artists. One was a Master's student in Amsterdam, and the other was a researcher for the city's municipality; both had left Syria within the last ten years and reconstructed their lives within the colourful streets of the Dutch capital. To ensure anonymity and protect the privacy of my participants, I will refer to them through fictitious names in the following sections.

Findings

The following segment of this research is divided into three thematic sections, each addressing a distinct yet interconnected aspect of identity formation in exile. The first section, titled "What is home?", examines participants' relationships to both Syria and the Netherlands. It proposes a conceptualisation of home as a fluid, contested space shaped by past and present notions of belonging. The analysis draws from Stock's (2021) symbolic and physical realms of diaspora, and incorporates the framework of transexperience (Chiu, 2003) to illustrate the tension between "here" (the Netherlands) and "there" (Syria).

The second section investigates the role of community and cultural expression in constructing one's sense of belonging to the host society. Cultural expression is identified as a means to "deal with the trauma of the past" and the challenges of the Dutch present, especially when language barriers obstructed integration in the host society.

The final section addresses the evolving nature of Syrian identity in exile. Drawing on Hall's (2021) conceptualisation of identity as a process of becoming, and Chiu's (2003) transexperience framework, this portion of the discussion delineates how Syrians living in the Netherlands reconstruct "Syrianness" through daily practices and cultural expression. Together, these sections reveal how identity in exile is neither linear nor unified.

1. What is home?

To understand how Syrians in the Netherlands reconstruct their diasporic identity, I began by investigating the relationship between Syrians in exile and Syria itself. This is because, at the core of the notion of diaspora, lies the "image of a remembered home that stands at a distance both temporally and spatially" (Stock, 2021, p. 24). It is therefore crucial to identify Syrian conceptualisations of such a "remembered home". In this section, I ask: what does "home" mean for Syrians in exile? Is it a geographic location, an emotional state? Or is it a fluid concept shaped by displacement? Understanding how displaced Syrians perceive and reimagine their "home" reveals which elements of the past are emotionally and symbolically carried to the present. In turn, this clarification helps analyse the process of identity reconstruction. As interviewees reinterpret what "home" means to them, they simultaneously redefine what it means to be Syrian by detaching their identity from locality.

When I asked the participants to describe their relationship with Syria, the image of "homeland" came back repeatedly. Herein, the "homeland" is interpreted as the place where one's identity is formed. Two respondents drew a picture of Syria as their mother. Hassan, a Syrian dancer that recently acquired Dutch citizenship, posited that "Syria, to me, is my mother. Even the land itself feels like my mother. I miss Syria deeply, and I can't wait to visit [..]. We may live far away from our mothers, but we always love and cherish them". Similarly, Ali, a percussionist and oud-player residing in Amsterdam, referred back to this image of Syria as a mother which you never choose and always long for, while comparing the Netherlands to a wife or lover, which one picks intentionally. He then associated the relationship between Syrians and their homeland as a scar, or open wound, by asserting that you "learn how to live with it; the scar is always going to be there, but you have to go on... and that's what Syria feels like to us". This imagery is quite powerful. A wound may heal, but a scar is a continuous reminder of the past. The scar of Syria is a memory embodied in the participants. Hence, Ali and Hassan's perspectives reveal how memory informs diasporic identity, in terms of what is preserved, what is idealised and what is redefined in exile.

Yet, a few moments later, when interviewees were asked to define their connection to Syria in terms of "home", rather than of "home*land*", they all recoiled with "what is home?". While "homeland" was described in symbolic or emotional terms, the notion of "home" generated uncertainty. This distinction is key to understanding how identity becomes fragmented after displacement. The general consensus among participants appears to be that home was "stolen from them", therefore they do not "really know what it means to feel at home". Instead of identifying one or the other country as home, Jasmine, contemporary Syrian artist, mentioned that she has "many homes, because we are strangers anywhere now [...]. I feel like I am a nomad person, and then my travel is my home". She concluded that most Syrians have developed an ideal version of home in their minds, that does not

reflect the reality of Syria after the revolution started. Similarly, Ali defines himself as being "from everywhere". Ilyas, a Syrian percussionist, talked of home in accordance with these perspectives. He identified home as "the beautiful image of Syria that [he has] in his memories", but he is not sure he will ever find it again. Hassan, Ali, and Samir also agreed that both Syria and the Netherlands equally do not resemble their ideal of home. Samir argued that "the Netherlands is home but not like home, and home is not how it was".

Taking into consideration the interviewee's conceptions of "home", it becomes clear that it is not solely defined as one's place of origin. For Samir, home is also where one can continue their everyday practices safely, which does not align with Syria's current political landscape. This distinction between a romantic idea of home and the importance of safety was discussed extensively by multiple respondents. Wahid, a student in hotel management, emphasized that "if home is where you're fed, safe... and maybe respected, then I would say I feel at home [in the Netherlands]". Amira, a researcher for the *Gemeente* (Municipality), immediately identified the Netherlands as her home because she "feels safe and respected here". Similarly, Jasmine said she defined home as the place in which she could continue her career, her art, and where her studio was. For all interviewees, the Netherlands is identified as the ground for the cultivation of a new, Syrian-Dutch life; one of stability, of continuous growth. From these insights, one can conclude that the idea of home for Syrians in exile is strictly connected to the notion of security, which corresponds with Tozan's (2025) findings. The negotiation between safety in the Netherlands and memory in Syria shapes how Syrianness is adapted and expressed in the interviewees' lives in the host country.

What emerged from most interviews is that participants perceive their heart as being split into two, as "[they] are kind of here, but also there". Other respondents, such as Laila, a Syrian painter and musician, described that she feels "not really here or there" instead.

Both of these perspectives showcase two important findings: First, Syrian perceptions of belonging are fuelled by memories of the past, or of "there". Second, the connection to the Netherlands results from the creation of "new" memories, from "here". The constant dialogue between the "here" and "there" exemplifies the diverging nature of the notion of home. Here, the framework of transexperience becomes useful to analyse the diasporic construction of home. In the case of Syrians, the spatial delineation between Syria and the Netherlands accounts for a sense of physical distance from the homeland, as well as an emotional tie to it, and simultaneously a growing attachment to the place of settlement (Chiu, 2003).

For that reason, this thesis categorizes Syrian diasporic experiences through Stock's (2021) physical and symbolic realms. The realm of locality entails the physical space in which everyday life takes place, hence it is embodied by the Netherlands, while the symbolic realm of Syria is used as a point of reference – although "home", as interpreted by my interviewees, entails both. Samir himself described his relationship with travel on these terms. He argued that rather than envisioning himself as passively changing, he was actively interacting with the change. He said such an approach to change transformed "the way in which he connected to his reality", and made it easier for him to integrate into Dutch society. The symbolic realm, in his experience, is embodied by his Syrian background, which unintentionally, but consistently, brings into his life. The Syrian background discussed here encompasses all the habits and aspects of his personality, including his way of thinking, that he developed in Syria prior to the start of his journey to the Netherlands. Although Samir arguably interacted with the changing nature of his locality, he also acknowledged that Syrian culture "is him" and will inadvertently be reflected in such a

process. The tension between these two realms is argued to be characteristic to all diasporic experiences (Chiu, 2003; Tozan, 2025).

In sum, while Syria is repeatedly identified as "homeland", a place of origin and source of identity, all participants struggled with reconciling an idealised version of Syria with the notion of "home". Their memories of home are not accurate reproductions of the past, but rather reimagined, remembered in the present through diasporic conceptualisations (Stock, 2021). Home became to them a contested space, as Syrians' nostalgic image of home corresponds to the same place in which they struggled, were oppressed and were forced to abandon (Tozan, 2025).

This analysis shows that the hesitance towards the concept of "home" is an ongoing condition for Syrians in exile. Syria was depicted as a nurturing mother and a continuous wound, and not necessarily as the embodiment of one's home. Similarly, when asked to relate such a concept to the Netherlands, participants expressed discomfort and reluctancy. For many, safety is an essential characteristic to their definition of home, which increasingly aligns with life in the Netherlands. Yet, emotional ties to Syria remain strong, resulting in feelings of being "split" or "in between". These evolving ideas of home form the emotional and conceptual space in which diasporic identity is negotiated. In other words, home is the lens through which identity is felt, questioned and reconstructed in the diaspora.

Although this first analysis recognises the evolving nature of the notion of "home" in exile, it fails to describe the ways in which the relationship between Syrians and such "home" evolves. In the following section, I will investigate what factors are involved in this process.

2. The role of community and cultural expression in the construction of home

During the process of integration into Dutch society, Syrians' connection to their homeland is not replaced by their growing attachment to the Netherlands, but rather evolves due to various factors (Tozan, 2025). This segment of the discussion identifies two factors that influenced Syrians' sense of belonging to the Netherlands: 1) the presence of a Syrian community in close proximity and 2) the role of artistic expression as a way to cope with the trauma of the past.

Firstly, what emerged from the findings of this research is that the desires for a "home" in the Netherlands are partially fulfilled by the familiarity, comfort and closeness of Syrian diasporic communities. As Nititham (2016) suggested, diasporic communities help "deal with the pain and loss associated with forced migration" (p. 105). Indeed, connecting with other Syrians in exile is one of the strategies developed by forced migrants to remain connected to their previous homes. That is because "our connection to each other helps us to feel at home, to remember home, and dream about home" (Tozan, 2025, p. 7).

In my first conversation with Wahid, he remarked in several instances that "Syrians kind of stick together" and they "take care of each other". He discussed the emotional challenge derived by the lack of support offered to Syrian refugees by the Dutch government, and expressed the need for a structured community that would cater to the needs of Syrians in the country. Luckily, Wahid found his way through the first stages of his stay in the Netherlands through a Syrian-led initiative known as "Syrians volunteers in The Netherlands" (SYVNL), an organisation focused on raising awareness for the Syrian crisis. In his years alongside SYVNL, he was slowly able to integrate into Dutch society by relying on the emotional and practical help offered by the Syrian community he

had found. Today, he sees a future for himself in Amsterdam, and partly attributes this to "having the Syrian community around, [his] family [..] which help [him] feel close to home". Ilyas's story resembles Wahid's. In his words, when he is "mentally tired, the best thing to do is hang around some Syrians, and just be together". In these instances, Ilyas and his Syrian friends often book an Airbnb for a few nights, and spend their time inside the room talking, listening to music, and telling jokes. He warmly asserted that simply having this community, and going on little get-aways, allows him to "bring a little bit of how [he] used to live in Syria in Holland, that life where [he] didn't have so many things to worry about". Hassan, too, suggested that when one arrives in an unfamiliar environment, they inevitably search for "people who can make [them] feel at home" — and that is why, when he had found a stable group of Syrian friends, he finally felt at home in Amsterdam. Similarly, Jalal explained his choice to move from Rotterdam to Utrecht was made to be physically closer to the Syrian community he was a part of. He added that he "really needed this community so [he] could feel [his] Syrianness". The significance of this community is better explained through its absence. Amira recalled struggling with severe depression when living in Turkey, as her circle of friends was limited to her brother-in-law and husband. She said "you cannot have just one friend". She described her experience with Turkish society as harsh, because although Turks physically resembled her people (as compared to the Dutch), the language barrier and the lack of support for Syrians did not allow her to adjust to the country. Once she moved to Almere, and established a larger community of Syrians, she "felt like [she] belonged".

The reported conversations add onto Grechi's (2019) argument that shared histories of displacement result in tight connections between Syrians. Within these communities, cultural exchanges take place. For instance, Laila and Amira spoke about gatherings revolving around Syrian food, while Jasmine and Samir shared stories of the art exhibitions and concerts they had attended together. This brings us to the second factor that influences Syrians' sense of belonging in the Netherlands: cultural expression. Although I will not go as far as arguing that enactments of belonging are universal to all Syrians, the use of cultural expressions was frequently identified by participants as a tool to navigate the feeling of being both (or neither) "here" and "there".

When asked what role artistic expression played into their lives, all participants gave similar answers. Ilyas explained that music "was really the key that solved all of [his] life problems", and that there is nothing else that "makes [him] feel like home more than smells and music". He described his first days in the Netherlands as lonely and challenging, due to the inability to communicate with neighbours and colleagues — and recalled how the clarinet was his only method of communication. Playing the clarinet not only allowed him to express his emotions, but also connect with other artists and audiences, forming bonds that transcended language. Music, in itself, became a language: a way to be understood without speaking. The problem of language came up with other interviewees too. Ali explained that he lacked proficiency in both English and Dutch, which did not allow him to properly express his feelings. Ali surpassed this problem by playing music instead. He said: "I had been in the Netherlands for two days and everything was different and unfamiliar… but then I went to the theatre, and I thought: *okay this I know*." While navigating the unfamiliarity of the Netherlands, "when [he] played music.. [he] knew how to do it. [He] could read the music, and [he] felt at home".

In Ilyas's and Ali's examples, forms of artistic expression made trauma tangible. Once transformed into a song or painting, such trauma can be dealt with and shared with others, thereby "facilitating understanding and social support, which can, in turn, reduce stigma, isolation, and loneliness" (Sajnani, 2019, p. 5). For Syrians living

in the Netherlands, forms of artistic expression became a reparative force. Ali explained this concept in his interview: “music connects people together. Politics separate people, so then you connect them with art, with music, with dance, with food, with sports”.

Jasmine further suggested that “art is the tool to deal with pain. Because, of course, [being away from Syria] is painful”. Art is therefore defined to be a therapeutic tool towards the horrors of Syria, a means to heal the open wound left by death and violence. Keeping up with Syrian cultural events, whether that be concerts or food festivals, became her way of “reactivating herself every couple of months, a way to feel at home”. Laila, too, confessed that “talking about Syria” was not enough for her after some time in the Netherlands. She explained how she “started with paintings, to express [her] emotions during all this travel”. Shortly after that, she became a musician, and eventually switched to storytelling. She now organises storytelling nights around Amsterdam, open to the public, in which she performs alongside a Brazilian and English artist on the topic of belonging. In her experience, various art forms became tools to navigate the feeling of being neither completely “here” or “there”, and never fully at home. Similarly, Hassan explained that “dance made [him] face the situation in Syria” and argued that “we need to keep dancing, because if we stop dancing and we stop creating art and culture, then when we will die as a country and as people” because under his perspective, what makes Syrians beautiful is their culture. What all of these insights tell us is that Syrians in exile, as a result of their similar life experiences, attribute the same cultural meaning to artistic expressions (Strauss & Quinn, 1997). Art is interpreted as a means to overcome the pain of the Syrian past, and the struggles of the Dutch present.

Surprisingly, one participant reported avoiding engaging with Syrian visual art altogether. Amira does not follow any Syrian artists on Instagram, because paintings make her “a bit depressed”. She recollects a time in which she consumed a lot of Syrian art, especially by a Syrian artist based in Germany. However, the melancholy evoked in her by such art has become too unbearable. Instead, she relies on music and food to share herself with Dutch society. She acknowledges that music “plays a huge role” in her life, and warmly recounted several instances in which Arab singers, such as Fairouz, and their songs accompanied the most significant moments of her life. Furthermore, she claims that what “makes her happy” is Syrian food. Her husband is a former political writer, now turned chef, and together they enjoy preparing meals for their two children and extended family. Although Amira does not produce art, or engage with the work of Syrian visual artists, she still relies on other forms of cultural expression to preserve her Syrian heritage.

In conclusion, Syrians living in exile define their sense of belonging in creative ways. They refute simplistic answers – such as associating home with geographic origin – regarding the connection between land and identity (Braakman & Schlenkhoff, 2007). In Ilyas’s words, “all the music, smells, a chat with a friend, for me that’s more what home is”.

3. What, then, is made of their Syrian identity?

As demonstrated above, Syrians engage in various forms of artistic expression to navigate the physical dislocation from Syria, and the process of integration in the Netherlands. Naturally, the following question arises: what is then made of their Syrianness, of their identity? Cultural expressions are inevitably employed to reconfigure a notion of “new” Syrianness. The emotional divide between feeling both “here” and “there”, or not

having a home at all, manifests in the creation of a hybrid identity: a Syrianness that encompasses both elements of Syria and of the new place of settlement.

When asked about the existence of one unified, distinct Syrian identity, Ali shook his head and firmly replied "it doesn't exist". All other participants seemed to reiterate this idea. Samir went so far as arguing that the Syrian identity is "the diversity in Syria". When urged to clarify, he asserted that "every city [in Syria] has its own character. Although we share a lot of things, there is not one singular identity. The real Syrianness [lies] in the differences between people and cities, which is present in culture and land". Notably, none of the participants contextualized their answers to my question about the existence of a "unified" Syrian identity in relation to Dutch society, or their experiences in exile. Instead, their responses maintained the homeland as a point of departure. This absence of a reference to the Netherlands suggests that the question of identity, for them, is not as strictly shaped by the pressure to integrate within the host country as it is by the characteristics of Syrian society. Samir's definition of Syrianness in particular was not framed in contrast to Dutchness or shaped as a response to displacement, but was rooted in the internal diversity of Syria. This perspective highlights the plural character of Syrian identity, which is not confined to one specific definition but rather is layered in nature.

While participants framed their understanding of Syrianness primarily through the lens of Syria's pluralism, their accounts of everyday life revealed a different picture. The interaction between Dutch society and the participants, although apparently subtle, is especially significant in the process of identity reconstruction. The new, transformed notion of Syrianness to which Syrians living in the Netherlands relate emerges from the interaction between the homeland and the new society (Chiu, 2003). In an attempt to analyse the reconfiguration of Syrianness in the diaspora, the theoretical framework of transexperience as an explanatory structure is again deployed to understand how Syrians navigate their identity. The relevance of the transexperience framework to this case is its emphasis on the location of settlement as a significant factor in the reconstruction of Syrian identity in exile.

Despite the multiple years having passed since the participants of this research left Syria, their cultural reference points identify with those of Syria. Jalal explained how his music does not have much in common with Syrian music in terms of composition or sounds, but it more broadly reflects him "coming from a certain place in Syria". Once more, his origin point is Syria, rather than the Netherlands. Similarly, Samir described his paintings as being personal, and a reflection of his Syrian background. Adding onto her partner's answer to my inquiry, Jasmine pointed out that she "wishes to have a personal experience not related to Syria, but [she] doesn't have this privilege [..] Sometimes [she] even asked [herself]: "What if I don't have Syrian in my brain, would I even be an artist?", reinforcing that her homeland is the benchmark for all her experiences. As theorised by Hall (2021), the participants' (transnational) identity is formed through the ways they interpret and position themselves within the past).

Furthermore, when describing their daily routines or morals, all participants referred back to the "Syrian way of living", which relates to Safran's definition of diasporic identity. Ilyas explained that life in Syria has a slower pace compared to its Dutch counterpart, and is more family-oriented. Jalal said that "Syrians have a different way of dealing with family, [..] it plays such an important role in each of our lives". Similarly, Amira fondly describes her family gatherings, which she cared to emphasize have at least fifteen attendees each time. Such portrayals of the Syrian lifestyle are crucial in the construction of a coherent Syrian identity. In other words, these transnational activities allow Syrians to maintain symbolic relations with Syria and sustain a shared notion of "Syrianness"

(Nititham, 2017). Nonetheless, many of them nowadays confidently resonate with Dutch culture. Jalal "feels like one of them" because he fits into the Dutch stereotype of an Amsterdammer. According to him, he has become extremely punctual, and will not remember his schedule unless he makes use of his phone's calendar app. Hassan thinks of himself as very direct, a characteristic that he attributes to his Dutch friends. When he applied for Dutch citizenship and obtained it, he even adopted a Dutch name alongside his Syrian birth name, to commemorate the start of a new life, and bring homage to his new family. Through the conceptual tool of transexperience, we can simultaneously consider the Syrian past and the Dutch present as markers of Syrianness. Transexperience's emphasis on change, rather than on the staticity of Syrian identity, is reflected in all of these experiences. As Jasmine cleverly explained: "We changed. We moved. Our pain changed. Our hope changed. Our joy changed. Life changed. So, our identity changed with it". This further resonates with Hall's (2021) conceptualisation of identity as a process of becoming and being. These examples showcase that Syrians living in the Netherlands are not simply preserving an unaltered Syrian cultural identity, but rather they are actively reshaping it in response to Dutch society.

Thus far, we have discussed the intersection of Syrian heritage and Dutch society in the reconstruction of Syrian identity. In such a process, the role of cultural expression is once again particularly significant.

Several interviewees reflected on the struggle of confronting and dismantling reductive stereotypes of Syria and its people within Dutch society. Wahid opened up about the hassle of breaking such stereotypes. He found that his Dutch classmates perceived Syria "as a desert in which people just ride camels", a view that denies the richness and complexity of Syrian heritage. Similarly, Ilyas faced the consequences of harmful Arab stereotypes "about Allah-u-Akbar and riding camels and beating women". These negative stereotypes distort the Syrian image, while also causing Syrians to internalize feelings of self-doubt and inferiority (Najm, 2019). Hassan echoed this sentiment, explaining that political discourse around the Middle East led him to pause and reconsider how he wished to represent himself as a Syrian. These stereotypes made it harder for Syrians to integrate in the Netherlands. Faced with a linguistic barrier, Ilyas turned to music as a form of resistance to such stereotypes. "It was very good for them," he said, "to see that Syrians are also playing the clarinet", because it showed the Dutch audience the depth of Syrian culture. This moment challenged narrow preconceptions of Syrians through art. Confronted with the same problem of language, at the early stages of her career Laila chose to only write and perform Arabic music without translating the lyrics. This challenges her Dutch audience to engage emotionally with her, beyond verbal understanding. Her refusal to translate songs from Arabic is not a limitation, but a deliberate artistic strategy: it re-affirms the emotional depth of her native language. Laila's relationship with art supports the argument that migrants often use cultural expression as a means of affirming their identity and engaging with the host society (Dimaggio & Fernandez-Kelly, 2015). She explained: "art changed me. I now feel the most close to my heart". She continued by arguing that without music or art, she "can't connect with who [she] is here. To share [herself] without it, it's really hard. Art always helps to share yourself with other cultures". This assertion did not refer merely to music and paintings. She also regularly attends the events of a women's group, where she proudly shares Syrian traditional food and poetry with her Italian, Argentinian, and Dutch friends. The act of sharing her Syrian culture with others, whether through art or social gatherings, reflects Laila's conscious negotiation of her identity. Through this approach, her connection to Syria is preserved, while simultaneously opening space for interaction with other cultures.

In light of the presented narratives, it becomes evident that identity in exile is not a fixed identity, but rather a fluid and evolving one. Syrianness is continuously reconstructed through the interplay of a Syrian past and the lived realities of life in the Netherlands. Whether through music, art, family customs, or food, Syrians creatively adapt and express their identity in ways that reflect both continuity with their past and openness to transformation. The framework of transexperience was useful in capturing this duality by emphasizing identity as a space of negotiation. In this context, Syrianness is no longer defined solely by the country of Syria, but by a layered notion constructed through cultural expression.

Discussion and Conclusion

To provide a coherent answer to the research question "*How do displaced Syrians construct their diasporic identity through cultural expression?"* this thesis has positioned cultural expression as a mediator in the process of identity reconstruction.

I have shown that Syrianness in exile is not a fixed entity, but rather it is a relational process shaped by the everyday interactions with Dutch society. Such a process is enriched by the deployment of various forms of cultural expressions. My findings complicate reductive views of diaspora identity as mere nostalgia for a distant past. Answers to the question "what is home?" were essential to understanding how Syrians express and perform their identity while confined to exile. The fluidity of Syrians' notion of home highlighted the experience of being "in between". Such feelings translated into hybrid identity performances: Syrians maintained emotional ties to the homeland, while adapting their everyday practices to their lives in the Netherlands. The presence of an external audience, that is, Dutch society, is argued to shape how Syrians present themselves. Participants reflected on having to both counter negative stereotypes about their homeland and find creative ways to preserve their cultural heritage. Though participants seemed to associate their identity with Syria, their performance of Syrianness reflected adaptations to Dutch societal norms. The "original" Syrianness was not discarded, but rather adapted to the opportunities and constraints of the Dutch environment. Syrianness, expressed through music, dance, food, and storytelling, is shown to be continually negotiated in response to the influences of the present. Ultimately, I argued that cultural expression, in the process of identity reconstruction, is a constitutive tool. Diasporic identity is not reducible to nostalgia: through artistic expression, Syrians continuously reformulate what it means to be Syrian - not in opposition to Dutch society, but through an interaction with it. In other words, cultural expression enables and mediates the process of identity reconstruction.

Overall, this thesis contributes to studies of the diaspora by positing artistic practices as central elements of identity formation. In light of the tendency to examine diasporic experiences in terms of loss, death, and destruction, I offered an analysis of the Syrian diaspora through a celebration of its creative aspects. This study comes with its limitations. Unexpectedly, I discovered that most of my interviewees knew each other personally, as the Syrian art scene in the Netherlands is quite limited and connected in scope. Such interconnectedness might have contributed to a certain degree of homogeneity in their perspectives, as individuals belonging to a close social network often share similar viewpoints (Speight, 1968). It is noted that this aspect might partially limit the generalisability of my findings, as group homogeneity can lead to narrow discussion (Cunico et al., 2024). Moreover, the context of the Netherlands and its socio-political implications may not be fully representative of the

broader Syrian diasporic experience. As such, generalisations about the construction of identity "in exile" beyond this national setting should be approached with caution. I encourage future researchers to explore similar questions in other host countries.

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Fast But Feminine? A Discourse Analysis of Women in Formula 1 Media

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Abstract

The aim of this article is to review the representation of female drivers within Formula 1 media, placing particular emphasis on how official reporting constructs gendered identities through language and tone. To contextualize this, the article begins by evaluating existing literature on the historical development of motorsport and the role of media in shaping today's narratives around female drivers. Implementing Pflugfelder's (2009) cyborg-like identity theory, the analysis interprets driver-car discourse as a negotiation of bodily legitimacy within a male-defined sporting environment. By conducting a comparative qualitative content analysis of Formula 1 and F1 Academy reporting, this study examines how linguistic framing shapes female driver visibility, agency, and authenticity. Three themes emerged from the analysis: masculinization of women, passive and active language, and provisional legitimacy. The first highlights how female athletes must adopt masculine-coded traits to be recognized as competent. The second concerns the subtle reduction of women to bodies, where achievement is softened, and mistakes are emphasized. The last theme investigates the persistent positioning of women as not yet fully legitimate competitors. The conclusion is that the official Formula 1 news website, despite appearing neutral, continues to reinforce gendered hierarchies in which female drivers are framed as provisional, exceptional, and outsiders rather than equals.

Keywords

Formula 1, Gender, Media representation, Cyborg-like identity theory, Comparative Content Analysis

1. Introduction

With millions of fans worldwide, Formula 1 (F1) is recognized as the most prestigious global championship for open-wheel single-seater racing. Each season, ten teams, each consisting of two drivers, compete for both the Constructors' Championship and the Drivers' Championship. But even though the sport is not explicitly gender segregated, only seven women have ever participated in an F1 weekend (Howe, 2022).

This ongoing gender imbalance can be credited to multiple interconnecting factors. To become an F1 driver, one needs money, time, and social support. Societal gender norms portray men as more interested in motorsport careers, which indirectly influences parental decisions about how and which of their children to support for early engagement (Kochanek et al., 2021). Once part of the sport, sponsorship dynamics reflect and reinforce this bias. Brands that provide financial backing tend to favor male drivers, who are perceived as more visible, marketable, and more likely to reach (and remain in) Formula 1.

In recent years, the Fédération Internationale de l'Automobile (FIA), the governing body responsible for F1, has increasingly emphasized the importance of promoting inclusivity and tried to actively encourage female involvement in motorsport. In 2022, the FIA launched the F1 Academy (F1A), a female-only racing series designed to develop talent and give women progressing from karting to single-seater racing more visibility. Its inaugural season took place in 2023, with only the season finale race being broadcasted. However, in 2024, the FIA expanded its efforts by broadcasting every race and creating stronger ties between the F1 Academy and other Formula series.

Despite the FIA's public commitment to support female drivers, many fans are skeptical about the sincerity behind these efforts. This skepticism stems mostly from the controversies surrounding the current FIA president, Mohammed Ben Sulayem, including accusations of misogynistic remarks, the introduction of regulations restricting drivers from making "political, religious, or personal statements," and his close alignment with countries such as Qatar and the United Arab Emirates, which have been criticized for anti-homosexual and sexist legislation (Sport, 2023). It has been argued by fans that the FIA's promotion of gender equality and women's empowerment functions, at least in part, as a public relations strategy (Richards, 2023; Reddit, 2024).

To critically examine the motives behind the FIA's gender inclusivity initiatives, this study will analyze the official Formula 1 news website (Formula 1, 2024a) to assess how women in motorsport are represented during the 2024 season. By conducting a comparative content analysis, this article identifies three themes that reveal how Formula 1's official media coverage constructs female drivers in comparison to male drivers. These themes are: (1) Masculinization of Women, (2) Passive and Active Language, and (3) Provisional Legitimacy. The study addresses the following research question: *How does the official Formula 1 news website use language and tone to represent women in motorsport?*

2. Literature Review

Officially, F1 has never prohibited female drivers from participating, as it is considered a unisex sport. But since its establishment in 1950, only seven women have ever sat in an F1 racing car seat, only five have actually driven a race, and only one has scored points (Howe, 2022; Matthew & Pike, 2016). The last driver was Susie Wolff in 2012, who was a test driver for Williams Renault and participated during one of the practice sessions. Afterward, she decided to quit her Formula 1 career, since she believed it just wasn't "going to happen" (Matthew & Pike, 2016, p. 1534).

With her experience in mind, Susie Wolff then launched the F1 Academy (F1A) in 2022, which began in 2023 as an all-female single-seater series. She states that the series was designed to help female drivers progress into Formula 3 (Leopold, 2023). But even though F1A is clearly defined to be a 'feeder' league like F2 and F3 (Brittle, 2022), except for the masculine-style reportage, these championships remain far from equal. The F1A uses lower-powered F4 cars, receives less monetary profits, and up until now, none of the graduating drivers have gotten the higher tiers.

So even though this support exists, F1 is still considered an inherently masculine environment. This is evident from the fact that men are still over-represented in motorsport, from drivers to mechanics and team owners (Kochanek et al., 2021; Musto et al.,2017). The implication that women cannot drive as fast and/or good as a man

is subliminally reinforced by multiple reasons. Special focus is set on three causes: historical background, financial challenges, and media representation and visibility.

2.1.1 Historical Background

Historically, when cars were first introduced to society, they were made by and for men. With the first affordable cars emerging in 1908, the automobile was invented within a society shaped by class, race, gender, and sexuality, all expressed through a social discourse (Sloop, 2005). So, from day one, having been marketed exclusively to men, the car carried a gendered dimension. Motoring and motorsport were viewed as inherently masculine and incompatible with feminine traits. The cultural belief that only men could drive cars was reinforced through a market system in which popular norms generated favorable economic outcomes (Sloop, 2005). Because cars were symbolically associated with masculinity, women were often seen as out of place within car culture.

Although women have participated in motor racing since 1888 in Britain (Ferguson et al., 2019), motorsport was first organized by elitist and exclusive gentlemen's clubs, who actively worked against women's participation (Howe, 2022). This pattern persists today, as most drivers enter the sport through family, with parents (typically fathers) more likely to encourage sons than daughters. Even when entering the field, a study by Kochanek et al. (2021) who did interviews with professional female drivers revealed that, women are often underestimated and not taken seriously in the field and therefore have fewer chances to climb up the motorsport career ladder.

2.1.2 Financial challenges

Having private capital available is often the only way for drivers of any gender to get into motorsport, especially single-seaters. Later, when proven their worth, drivers must network for themselves to attract sponsors. But while their male counterparts receive sponsors due to merit, female drivers often were "strung along" (Matthew & Pike, 2021, p. 5). If a woman is good, but not pretty enough, sponsors would not look at her. But if a female driver is too pretty, she "calls for attention" (Matthew & Pike, 2021, p.8). Female drivers, therefore, must constantly manage how they are perceived by those in power.

The motorsport field is mostly (not all) upper-class, and people with fewer options for social mobility need to work harder. In Kochanek et al.'s (2021) study, the female drivers talked about having to use their femininity to gain financial resources. They highlighted the fear of becoming a "token" driver, having to secure sponsors while avoiding being seen as merely fulfilling a quota or marketed as the next Danica Patrick (famous female IndyCar driver). This, in turn, often led to them not being taken seriously and having their merit questioned.

If women in F1 are denied equal opportunities, the notion that they are inferior drivers persists. This belief will only begin to change when a female driver is given the chance to succeed and performs well. However, simply performing well will not shift public perceptions of female drivers without media attention.

2.1.3 Media representation and visibility

There is still significant media inequality within sports in relation to gender. Whether in the questions journalists ask female athletes, assumptions about female fans, or the limited airtime they receive (Kissane & Winslow, 2016). In a study on televised sport, Musto et al. (2017) found that women's sport stories are about 50 percent shorter than those of men. Having a look at F1TV, the official broadcaster of the Formula championships, an F1 weekend includes roughly 4 to 5 hours of broadcasted racing (plus additional formats, such as press

conferences and interviews) compared to about 2.5 hours for F1A. Not only that, but the F1 season is currently 24 races long, while the F1A season has only 7 races. This is partly due to financial constraints, but most importantly, it should be mentioned that F1A is a "feeder" series, supposedly leading drivers to F3. This means a direct comparison with F1 is unfair since they are simply different leagues. Nevertheless, it has significant implications for driver exposure and development.

When the media adequately represents women, they become visible, and visibility brings relevance. Especially, the lack of culturally relevant role models is significant, since without such inspiration, young girls in karting lack the encouragement to pursue a professional motorsport career (Meier, 2015; Howe, 2020). Matthews and Pike (2016) found that participants believed that "a woman participating in the 'pinnacle' of motor-racing, F1, would help challenge societal assumptions regarding women motor-racing drivers" (p. 1546). Achieving equal opportunities for women drivers depends on having prominent female leaders and role models in the media.

Unfortunately, the efforts to achieve equal representation can sometimes backfire and reinforce the perception that women's participation is based on reaching a gender quota rather than on merit. Krane (2001) notes that female drivers find themselves in a no-win situation. They must showcase their skills and capabilities like their 'masculine' colleagues to not be judged as weak and inferior. But at the same time, they must avoid being criticized for displaying overly masculine behavior. To appeal to both sponsors and fans, they must balance their career ambitions while displaying heterosexual femininity (Howe, 2022).

However, merely increasing the number of female drivers does not guarantee greater representation or a shift in gender dynamics. Being present does not necessarily make them visible. Long-term progress in gender equality also depends on the presence of high-quality role models (Meier, 2015). After all, even when people retreat from the sport since they do not feel like they will succeed, they are still part of the community. Looking at Susie Wolff's focus on promoting female drivers, it becomes clear that the importance of a female-only championship lies in demonstrating that women can compete, challenging societal assumptions about their abilities (Kissane & Winslow, 2016; Matthew & Pike, 2016).

2.2 Theoretical Framework

Although driving is theoretically a gender-neutral skill, it has long been tied to masculinity and heteronormative ideas of power, control, and identity. Drivers are never truly neutral. Their actions are interpreted through social meanings attached to their bodies. A male driver may be read as embodying control and dominance, while female drivers are often seen as challenging masculine norms (Sloop, 2005). Simply performing well does not negate these gendered interpretations; women are judged both on skill and on whether they conform to social expectations of femininity.

Pflugfelder (2009) draws on Haraway's cyborg metaphor when he uses the term "cyborg-like identities" to describe the way motorsport discourse merges a driver's body with the race car, presenting them as a single hybrid organism. This is rhetorically constructed through discourse as fans and media often talk about drivers as if the vehicle were an extension of the person's skin, personality, and cognition. While male drivers are granted full techno-agency (the embodied ability to use technology for action), female drivers are portrayed as emotional or aspiring and thus denied full cyborg legitimacy. Howe (2022)

extends Pflugfelder's (2009) theory by showing how female drivers in elite motorsport must perform masculinity and suppress bodily difference to access partial legitimacy within a male-defined cyborg framework. Pflugfelder (2009) analyzes the female body in relation to the vehicle in three phases: *the body beyond the vehicle*, *the body with the vehicle*, and *the body in the vehicle*.

The first phase of Pflugfelder's (2009) analysis focuses on the social and cultural meanings attached to women drivers outside the actual driving experience. Cultural narratives shape how female drivers are perceived even before they enter the car, from their presence in a male-dominated sport to the marketing of femininity and assumptions about skill. This reflects a social constructivist view, which holds that our ideas of what is "masculine" or "feminine" are continually produced through social discourse, norms, and everyday interactions (Kochanek et al., 2021). Gender is not something a person simply 'has', but it is assigned and imposed upon from birth as individuals learn which gendered behaviors are considered socially (un)acceptable. Drawing on Merleau-Ponty's (1962) phenomenology of perception, the body does not exist as a passive object within pre-existing coordinates but actively creates and organizes space through movement and engagement with the world (Young, 1990; Pflugfelder, 2009). Accordingly, a woman's bodily presence in motorsport is inseparable from gendered interpretations, as her orientation, posture, and actions are immediately read through social expectations, making her gender highly visible before any performance occurs.

Pflugfelder (2009) argues that the driver's body is not erased by the machine. Even though the vehicle is central, observers do not just see the car, but also the race and gender of the driver. Because athleticism is culturally equated with masculinity and positioned as the opposite of femininity, the female body becomes a site where femininity is judged against the 'natural' masculine sport model. As a result, the female driver is often not taken seriously, viewed as less marketable, and made to feel out of place. F1A attempts to disrupt this dynamic by creating a space where the female body can act according to its own standards.

The second phase focuses on the driver's relationship to the car as an object and tool. Here, Pflugfelder (2009) argues that *the vehicle* implies an intimate interaction, in which control and trust are negotiated between human and technology. Female drivers are then disrupting the idea of a neutral, unified driver-machine identity. Their presence makes gender distinctions visible, and the car itself becomes a gendered extension of the body (he calls it a *prosthetic*), carrying cultural meanings beyond its mechanical function.

It is often spoken of a driver's driving style as 'driving identity'. For example, Max Verstappen (four-time F1 champion) is widely described as a 'ruthless' driver. Fans see his aggressive overtakes and forceful defense as extensions of his personality, so that his public identity on track blends smoothly into perceptions of him off-track as a confronting, and sometimes even hostile, figure. His Red Bull car and its movements fuse with his persona, forming a unified cyborg identity in which driver and machine are perceived as one. In motorsport discourse, this identity is inseparable from the machine's appearance, movement, and performance. Although the car may allow equal physical performance, social and cultural norms attach preexisting gendered expectations to drivers, shaping how their skills and actions are perceived.

For male drivers like Verstappen, this cyborg identity appears seamless. For female drivers, however, gendered discourse interrupts this union. The racing community often assumes women are weaker or less capable, which can lead to female drivers internalizing these beliefs and interpreting their effort as a sign of weakness

(Kochanek et al., 2021). This shows how social discourse shapes the lived experience of the body, linking cultural meaning to physical performance. Women drivers' heightened symbolism further destabilizes their driver-car identity in a male-dominated sport. Initiatives such as female 'feeder' leagues are therefore crucial, as they demonstrate that women are not merely passive victims of discrimination but can actively navigate, negotiate, and challenge the structures that marginalize them.

The third phase focuses on the first-person experience of driving, the pure moment of 'embodied subjectivity' in racing. Yet, even in this intensely personal state, cultural narratives intrude. Since the beginning, women's presence in cars has drawn attention. Merely being seen inside a car made women highly visible, while actually driving one provoked controversy for defying social expectations (Scharff, 1991, cited in Pflugfelder, 2009). Women's bodies are always noticed and interpreted through gendered meanings, caught between two contradictory views: one claims they become gender-neutral when driving, judged purely on skill, the other insists they remain essentially feminine.

Dominant cultural ideas construct what it means to be a woman in motorsport. When female drivers are read as embodying femininity, they reinforce these narratives, solidifying their position within a gendered discourse. As a result, fans and media often frame their performance through a cultural lens that assumes a specifically feminine (and often inferior) way of driving, even when their physical techniques match those of male drivers.

The creation of an exclusively women's championship, such as F1A, complicates this dynamic. Running separately from F1 may reinforce perceptions of female drivers as 'Others' (Beauvoir, 2011, as cited by Howe, 2022), granting them a status of 'separate but equal' while masking deeper inequalities. Despite potential criticisms of marginalization or being "just a women's race," the series provides an important platform for female drivers, offering opportunities to advance into F1 and challenge the gendered structures of motorsport.

3. Methodology

This study utilizes a comparative qualitative content analysis to examine x The analysis focuses on two related news channels, the Formula 1 news channel and the F1 Academy news channel. This website was selected because it is F1's primary news platform and therefore influential in shaping the public perception of the sport. This comparative approach allows for an in-depth exploration of possible differences or similarities in representation across the two championships in connection to gender perceptions.

The analysis focuses on two main dimensions. First, the language used. This includes identifying descriptive terms used for female drivers and assessing whether the narrative emphasized drivers' achievements, personality traits, or physical appearance. Second, attention was given to the tone of the coverage, evaluating whether it is praising, dismissive, or neutral. Especially focusing on whether coverage portrayed female drivers as empowering or exceptional.

A total of 10 articles were selected for analysis, five from the F1 news channel and five from the F1 Academy news channel. The selection was based on ensuring a balanced distribution across the 2024 season, with one article from the early season, capturing introductory coverage; two articles from the mid-season period, reflecting potential escalation as competition rises; and two articles from the late season, focusing on championship

achievements. Only articles published during the 2024 season were included, excluding off-season material. The analysis focused solely on 'report' articles, as their longer narrative format centers on race events and driver performance.

Frist, reflexive Thematic Analysis (TA) was used to identify recurring patterns, and then Feminist Critical Discourse Analysis (FCDA), a subtype of Discourse Analysis (DA), was applied to uncover deeper meanings. This combination allowed linking patterned meanings in the data with their broader socio-political construction. Following Braun and Clarke (2022), TA was treated as the identification of shared meanings organized around central concepts. Recurring patterns such as 'active language' and 'passive language' or other stylistic devices were identified as initial codes. But TA's dependency on thematic coherence can lead to overlooking contradictions or variability, therefore drawing boundaries between themes can involve subjectivity and therefore biases.

Subsequently, applying Discourse Analysis, as discussed by Gill (2000), means paying close attention to how language functions in context: how it performs actions, negotiates identities, constructs norms, and sustains power relations. The initial codes were therefore further developed as it was analyzed not just *what* was said about F1/F1A, but *how* and *why* it was said, within institutional, historical, and cultural settings. Using FCDA (Lazar, 2005) was particularly useful in examining how rhetorical strategies such as a 'neutral tone' and 'subtle undermining of dominance' revealed the reinforcement of a masculine narrative.

3.1 Positionality

When doing qualitative analysis, in this case specifically FCDA, it is important to put oneself in relation to the project. Questioning and reflecting your positionality as a researcher can help reduce subjectivity and biases. I came up with specifically 2 character attributes of mine that could and did influence my interaction with the data.

Firstly, I identify as female, a positionality that is inherently relevant to a gender-focused research question. This identification makes me more aware of gender norms and sensitizes me to issues of underrepresentation and marginalization within motorsport, thereby motivating me to analyze the representation of women in Formula 1 media. However, this embodied feminism also presents the potential risk of over-interpreting gender-related dynamics or approaching the data with preconceived expectations of bias.

Secondly, my engagement with Formula 1 has been both long-lasting and intensive. I possess a considerable degree of knowledge about the sport and am aware of the public discourses and popular opinions surrounding the sport. This puts me in a dual position. On the one hand, my extensive knowledge allows me to interpret the subjective meanings embedded within media representations with greater nuance and sensitivity. On the other hand, my personal investment and interest in the sport may introduce biases and blind spots, potentially affecting my analytical objectivity.

It is therefore essential to maintain reflexivity throughout the research process to minimize these risks and keep critical distance. This methodology aims to provide a systematic understanding of how women in motorsport are represented on the official Formula 1 news website throughout 2024. By comparing language and tone across the F1 and F1A news channels, the study seeks to reveal whether coverage reflects genuine support for female drivers or sustains universal gendered opinions.

4. Body

4.1 Masculinization of Women

At first glance, the Formula 1 (F1) and Formula 1 Academy (F1A) articles appear linguistically neutral. Apart from the length and depth of the articles there is not much of a difference. The language seems neutral, and the tone has no underlying meaning. But when looking closer, this neutral language reflects something that is not there: a recognition of femineity within motorsport.

The authors of F1TV seem to try their best to be unbiased towards both genders and report objectively about the happenings on track. But the linguistic uniformity reflects the dominance of masculine norms that shape Formula 1 and, by extension, its female counterpart. Because F1 Academy was established later, it therefore had to adapt to pre-existing masculine standards. Even though the FIA stated the aim to support women's inclusion, structural disparities remain. This discrepancy between rhetoric and reality reveals how 'neutrality' itself can reproduce inequality.

As Howe (2022) notes, women-centered leagues risk slipping into Beauvoir's notion of "*Otherness*," where women are defined primarily in relation to men and positioned in opposition. In the F1A context, female drivers must balance conformity to masculine-coded performance norms with the expectations of femininity. For example, the following sentence shows agency, speed, and decisiveness: *"Tasked with getting racing back underway into Lap 5, Pin slowed the pack right down, catching Pulling unawares, as she bolted down the main straight to start building a seven-tenths gap"* (F1® Academy, 2024a). The author(s) use words like "*bolted*" to associate dominant racing terms with female identities. The phrase "*catching Pulling unawares*" implies a strategic outmaneuvering of another female driver. While it emphasizes competition and tactical thinking, it constructs Pin as a "cyborg-like" driver (in line with Pflugfelder, 2009), showing mastery over machine and strategy, a portrayal that grants her partial inclusion in the masculine-coded world of F1.

The creation of an only-women championship creates a 'separate-but-equal' status (Howe, 2022) and therefore a subordinate of the original. As mentioned before, these championships are factually not equal. F1 Academy drivers drive cars, that are slower than F4 cars. Even Max Verstappen, 4-time world champion, argues, "there is no next step for [the F1A drivers] now. For example, the gap to a Formula 4 car is already too big" (Mountford, 2024). He and others have argued that female drivers need better machinery to showcase their abilities, as advancing to higher levels becomes increasingly difficult due to the limited number of available seats. The slower cars make the technology itself a visible marker of difference, contradicting the claim that the vehicle is neutral and reinforcing the narrative that women need "better" machines to prove competence.

This shows how the car is infused within the driver's ability. Female drivers are only legitimized when they adopt the masculine-coded cyborg attributes of dominance, machine logic, and emotional detachment that the mainstream discourse valorizes. In the language of F1 TV, this is reflected in descriptions of drivers "wrestling" (F1® Academy, 2024a) or "dominating" (F1® Academy, 2024b). In Pflugfelder's terms, the women-only series does not create a new, gender-neutral cyborg identity; it sustains the existing gendered assemblage by positioning women as a subordinate, technologically-mediated "other", having to conform to masculine characteristics.

And this 'masculinization' is, in return, reproduced by the drivers themselves. Female drivers often deliberately adopt a more 'tomboyish'-appearance to be legitimized within the male-dominated environment

(Matthew & Pike, 2016). In Kochanek et al.'s (2021) study on the agency of professional women racecar drivers, the participants talked about a "masculine […] switch" (p. 7) and adapting a "'just-a-driver mentality" (p.7), emphasizing their identity as drivers rather than *female* drivers. Becoming one with a car, an inherently masculine space, can diminish the driver's femininity and render her symbolically masculine. While this mindset can be empowering, allowing women to focus on skill and performance and thereby gain legitimacy, it also can be seen as disempowering, because it requires them to adapt to a masculine norm. This shows a paradox of seemingly exercising agency and choice, yet their agency remains restricted by the deeply gendered structure of the sport.

Ultimately, female drivers face two choices: to distance themselves from femininity and the traditional idea of being 'a woman', or to embrace womanhood, thereby reproducing stereotypes. On the one hand, rejecting the feminine framework may help women gain acceptance within the sport, but it also reinforces media-driven stereotypes that associate femininity with incompetence. On the other hand, when womanhood is embraced, it can show that femininity and success can coexist, although this still reproduces heteronormativity as women then act 'masculine' (Kochanek et al., 2021; Kissane & Winslow, 2016).

4.2 Passive and Active Language

Another pattern that emerged in my comparison of F1 and F1A articles is the strategic use of passive and active language. In the F1 articles, male drivers are frequently represented through active constructions when they perform well, reinforcing their agency and control ("*Max Verstappen set the fastest time […]"* (Formula 1, 2024d)). However, when male drivers make mistakes, the language often shifts toward passive or softened phrasing, thereby minimizing personal fault and preserving their legitimacy as elite competitors (*"Yuki Tsunoda found himself out of Q2 […]*" (Formula 1, 2024f)).

In contrast, the F1 Academy coverage shows the opposite tendency. Female drivers' successes are commonly framed in passive or reflexive voice, for example in lines like *"Pin found herself quickest once again"* (F1® Academy, 2024b). This wording distances the driver from their own achievement, presenting progress as something that happens to them rather than something they actively produce. When it comes to mistakes or setbacks, however, the discourse surrounding female drivers becomes noticeably more active. Phrases like *"Bianca Bustamante losing the rear of her McLaren […]"* (F1® Academy, 2024d) place clear emphasis on action and responsibility, subtly implying that female drivers lack control or fail to master the vehicle.

Musto et al. (2017) found similar description in their study, showing that this phenomenon is nothing new. By giving men agentic, powerful descriptions and giving women flat, bland descriptions, commentators covertly uphold the idea that male athletes are inherently stronger and more impressive. Male drivers are discursively positioned as naturalized cyborgs: in control, efficient, and technologically competent (Pflugfelder, 2009). The machine becomes an extension of their body, and their identity as high-performing techno-subjects is reinforced. Female drivers, on the other hand, are represented as partial or unstable cyborgs, whose relationship with the machine is tentative or conditional. This reveals a misunderstood societal understanding. Men are judged as individuals, meaning if a male driver makes a mistake, it is *he* who is at fault. Female drivers are instead judged as a group. If a woman drives badly, it is not just her who made a mistake, but it is understood as a *natural* female characteristic (Howe, 2022). When women's performance is not seen as individual ability but as the automatic result of their biological sex, they lose their subjectivity and are transformed into a generalized type. This is also understood as objectification.

Combined with 'bland' language, this normalizes a hierarchy between men's and women's sport (Musto et al., 2017). While this might avoid being called a sexist, it frames inequality as a natural evaluation of merit or talent. The disguise of overt sexism as individual assessment makes the bias appear reasonable rather than discriminatory, and it is harder to challenge. Given the substantial time and financial investment, the FIA has put into the F1A to support female drivers and challenge gendered narratives in the sport, they are fully aware that overt sexism is no longer publicly acceptable. Practices such as excluding women entirely from the sport, making medical claims about female drivers, or openly trivializing and sexualizing them are now widely recognized as offensive. People today understand the consequences (including the damage to the FIA's public image) of expressing explicit sexism. However, rather than fully reflecting on these issues or acknowledging them, sexism does not disappear; it simply becomes more indirect.

Their perceived lack of control, highlighted through language, suggests that they have not fully achieved techno-agency. This gendered asymmetry in narrative voice and attribution of agency reflects deeper structural inequalities in motorsport discourse. Covering women's sports in a 'just the facts' style makes them appear less exciting and emotionally engaging. Even when women perform at a high level, the absence of enthusiastic or powerful language diminishes the perceived significance of their achievements. This undermines the goal of F1 Academy, which aims to show that female drivers can compete with male drivers and deserve a place in the top league. Subtle grammatical choices reaffirm gendered power dynamics, with female drivers continually having to prove their right to belong in the motorsport space.

4.3 Provisional Legitimacy

This construction of the male drivers being framed as already-legitimate cyborg-athletes and female drivers as aspiring, not fully "*cyborged*"-athletes, can also be seen by the strategic use of euphemisms. This stylistic device diminishes female agency as it downplays potential negative or weak realities. For example, women drivers are "*trying to progress*" (F1® Academy, 2024e), "*attempting*" (F1® Academy, 2024c), or "*gave it their best*" (F1® Academy, 2024d). Such phrasing praises effort rather than achievement, aligning with FCDA's observation that women's actions are often discursively softened or diminished, reinforcing traditional gender norms that celebrate commitment over power.

Howe (2022) notes that women in male-dominated technical arenas are often portrayed as 'still arriving', as if their belonging is always conditional and under evaluation. This framing displays their participation as provisional, denying them the full status given to their male counterparts. The emphasis on them *having to achieve something* shifts responsibility onto the individual woman, reinforcing the notion that their progress depends solely on personal resilience. Even when F1TV expresses support for female drivers, their linguistic choices often show underlying skepticism. The rhetoric of support appears on the surface, while at the same time reinforcing the idea that women's place in the sport remains exceptional and uncertain.

To appear supportive without seeming biased, the media often downplays differences, praising female drivers for 'trying' rather than fully recognizing their achievements. By ignoring the gendered presence of women in the race car, the author(s) are rhetorically legitimizing women within the ideology of technology and merit-based competition. However, this offers little real encouragement, due to the tension between the aspirational identity women are expected to perform and the social pressures to conform (Pflugfelder, 2009). Women are thus caught

between demonstrating competence to achieve legitimacy and navigating societal expectations that their success remain exceptional rather than normalized.

This provisional framing echoes broader patterns of feminine embodiment. Young (1990) argues that women are often underestimated; they come to believe these judgments and eventually internalize them. They learn to inhabit space as limited, internalize others' underestimation of their capacities, and experience their bodies as both subject and object. In her essay, Young (1990) writes that the body is the primary site where the world is given and where one can act toward it and that "the most primordial intentional act is the motion of the body orienting itself with respect to…its surroundings" (p.35). In other words, women learn to inhabit the world under constraints, such as restricted space, internalized self-limitation, objectification, and split bodily awareness. Their movement is therefore constricted, careful, and hesitant. A woman does not act entirely freely; she is also vigilant of her surroundings. This double awareness prevents full absorption in the activity itself, splitting her engagement between perceiving the world as it is and negotiating her place within it. Media discourse mirrors this structure: by praising effort over achievement and depicting women as continually aspiring, it reproduces the gendered assumption that female competence is exceptional, fragile, and always under evaluation.

In sum, the construction of legitimacy for women drivers is inseparable from their aspirational identity: their efforts and presence are continuously measured against male norms, while their achievements are discursively softened, producing a provisional legitimacy that must constantly be earned. F1 Academy aims to present female drivers as fully capable and ready for progression; however, by framing them as "not ready yet," this discourse weakens the claim that they belong in higher tiers such as F4 or F3. As a result, drivers are positioned as perpetually aspiring, limiting the series' ability to function as a credible pathway to higher levels of motorsport.

Conclusion

This study set out to investigate how the official F1/ F1A news website represents women in motorsport through its use of language and tone during the 2024 season in comparison to male drivers. While readers would not see much of a difference at first glance, further confrontation shows that, despite the FIA's public emphasis on inclusivity, the media coverage continues to discursively position female drivers as peripheral, provisional, and aspirational. Three themes were developed: masculinization of women, passive and active language, and provisional legitimacy, highlighting how gendered power dynamics are reproduced even in seemingly neutral or supportive narratives.

Gender in sport is a much talked about topic. But instead of ignoring the aspect altogether, it is important to look at the intersectional personal experience of athletes. By participating in such a masculine environment, women work hard on mental and physical skills to succeed in races and to push against traditional male dominance in the sport. At the same time, they are expected to meet higher standards than male drivers, which can be socially and emotionally demanding. Dismissing the issue ignores lived realities and continues to reinforce unfair gender roles, keeping women in a marginalized position (Kochanek et al., 2021; Howe, 2022).

By combining Pflugfelder's (2009) theory of the cyborg-like identity and the application of FCDA, it was possible to unpack the ideological functions of tone, word choice, and grammatical framing, revealing the extent to which language contributes to the symbolic marginalization of female athletes. Female drivers navigate a

paradoxical space: they must adopt masculine-coded behaviors and identities to gain legitimacy while simultaneously managing societal expectations of femininity. Overt forms of sexism in media outlets further invisibilizes the challenges female drivers face (Musto et al., 2017). Women in motorsport are still judged by male standards, showing that equality needs more than just access; it also requires changing the culture and ideas of what counts as skill and value in the sport.

It is important to note that the Formula 1 Academy was only established three years ago, and social change and acceptance take time. Also, comparing the Academy directly to Formula 1 may be misleading, as it is not intended to be a female version of F1. Rather, it aligns more closely with F4 or F3 and is officially considered a "feeder" series. Future research comparing it to other feeder leagues could therefore offer a more accurate assessment of the FIA's efforts to promote female talent. Formula 1 is understood as a relatively newer sport, with popularity only rising increasingly. Analyzing other media channels and/or analyzing TV broadcasts could enhance the spectrum and reachability of portrayed perspectives.

Finally, should the F1 Academy persist, future research could explore how participation has impacted the drivers who have so far become champions. Once the point arrives where it is normal for women to be part of F1, this analysis could look very different. The more female drivers gain experience in the sport, the more they improve their performances, further strengthening the perception of female drivers as legitimate.

Ultimately, this study shows that the representation of women in elite motorsport is not simply a matter of visibility, but of *how* that visibility is constructed. Even when female drivers are praised or celebrated, the underlying narrative often reinforces their outsider status. As the F1 Academy continues fostering its goal, it will be crucial to assess whether discursive patterns are change over time.

Conflict of Interest

The author declares no conflicts of interest.

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Variation in Conversion Therapy Exposure Across European Countries: A Cross-National Analysis and its Mental Health Implications

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Abstract

This article provides one of the first cross-national analyses of exposure to conversion therapy practices (CTP) across Europe, examining their prevalence, typology, and mental health consequences for LGBTQ+ individuals. Drawing on Minority Stress Theory and analysing a unique dataset from the 2023 EU LGBTIQ Survey (N = 100,577), we demonstrate that nearly a third of LGBTQ+ respondents report exposure to CTP — ranging from verbal humiliation to physical and sexual violence — with substantial variation across countries and identity groups. Using multivariate regression models, we show that CTP significantly worsens depressive symptoms, particularly among transgender people. Our mediation analysis reveals that identity concealment plays a key role in this relationship, suggesting that CTP operates not only as an acute trauma but also as a long-term mechanism of shame, silencing, and internalised homophobia. The findings offer strong support for all three of our hypotheses and indicate that CTP should be understood as an institutionalised form of identity-based violence. We conclude that legal bans on CTP, while essential, must be paired with cultural transformation and trauma-informed mental health care to effectively safeguard LGBTQ+ wellbeing.

Keywords

Conversion therapy, Europe, LGBTQ+, Mental health, Quantitative research

Introduction

By May 2025, more than a million Europeans had signed a petition submitted through the European Citizen Initiative that urges the Commission to propose legal bans on the harsh and antiquated practice of conversion therapy (Mangin, 2025). *Conversion therapy practices (CTP)* refer to a set of varying procedures which are intended to change or supress an individual's gender identity or sexual orientation (UN Human Rights Council,

2020). These practices include physical methods ranging from hormone treatments to sexual assault as well as non-physical techniques like psychotherapy or pastoral counselling. Less abstract, CTP may entail "advice on repressing sexual attraction, a physician prescribing medication to suppress sex drive, or intentional delay of gender non-affirming care" (Kinitz et al., 2021, p. 2). Since CTP targets those whose sexuality or gender identification clashes with heteronormative ideals, the practice exclusively endangers members of the LGBTQ+ community who often suffer from long-term effects such as increased self-hatred, social isolation and depression (Fjelstrom, 2013). The way in which CTP discriminates against LGBTQ+ people is essentially through causing severe physical and psychological pain, denying them freedom to express their true identity and reinforcing the social subordination of these individuals (Trispiotis and Purshouse, 2022). Although the petition's success reveals widespread recognition of the practice's unethical nature and the popular push for governments to protect LGBTQ+ lives, only eight EU member states have officially banned CTP (de Groot, 2024). With this inhumane practice remaining permissible under law in most European countries, it is necessary to examine how frequent LGBTQ+ people are exposed to different forms of CTP across Europe.

So far, most studies have focused on CTP experiences among LGBTQ+ individuals — especially young adults — living in the United States (Campbell and Rodgers, 2023; Forsythe et al., 2022; Higbee et al., 2022). Notably, the European Parliamentary Research Service has reported that "there are no data or statistics about these practices in the EU" (de Groot, 2024, p. 2). We could only find one study carried out by a team of Dutch scientists in 2020 who discovered that 3.51% of LGBTQ+ respondents have been exposed to CTP. According to these scholars, this number may be only the "tip of the iceberg" because social stigma tends to hinder the open disclosure of such experiences (van Wijk et al., 2020). Thus, our aim to investigate CTP activity across the European continent fills a considerable empirical research gap. Importantly, this gap is not merely descriptive, but has direct theoretical and policy relevance. Given that legal frameworks, religious contexts, and welfare systems differ significantly between the United States and Europe, existing findings cannot be readily generalized to the European context. By providing systematic cross-national evidence, our study allows for a more context-sensitive understanding of how CTP operates within different institutional and cultural settings, and thereby contributes to both the refinement of Minority Stress Theory in non-U.S. contexts and to ongoing policy debates on the necessity and effectiveness of CTP bans. We are also interested in exploring the association between participation in CTP and the mental well-being of LGBTQ+ people. Research conducted in the U.S. shows that undergoing CTP is likely to result in increased psychological distress, depression, substance abuse and suicidal behaviour (Campbell and Rodgers, 2023; Forsythe et al., 2022; Higbee et al., 2022). Yet, this relationship has not been tested among European LGBTQ+ individuals which further adds to the academic relevance of our resulting research questions:

1. How prevalent are CTP practices across European countries?

2. What types of CTP practices are used to suppress an individual's gender and/or sexual identity?

3. How do CTP practices impact mental health outcomes among LGBTQ+ people in Europe?

Since evidence suggests that exposure to CTP significantly heightens the risk of suicide attempts, this study provides important research for policy-making efforts to prevent LGBTQ+ suicide (Terrell et al., 2022). More specifically, it may underline the need for implementing effective bans on CTP which also have symbolic value in recognising LGBTQ+ rights (Motmans et al., 2023). Thus, we hope for our research to incentivise future policy projects to target the ongoing incidence of CTP and reduce the discrimination of LGBTQ+ individuals.

Below, we explore our research questions through the application of Meyer's (2003) Minority Stress theory and the analysis of secondary data collected by the 2023 EU LGBTQI Survey. Descriptive findings indicate that a substantial share of respondents report exposure to conversion therapy. In more detail, we reveal how conversion therapy exposure varies depending on the particular practice type, country of residence, and the respondents' sexual orientation and gender identity. Our regression analysis shows that experiencing conversion therapy is significantly associated with depression amongst LGBTQ+ people. In addition, those belonging to a gender minority appear to be impacted most strongly by this effect which we consider a consequence of the tendency to hide one's true sexual orientation or gender identity after conversion therapy exposure.

The remainder of this paper proceeds as follows: We begin with explaining what conversion therapy constitutes and why it affects mental health. After situating our study in the existing literature and pointing to the missing research on European experiences with conversion therapy, we draw on Minority Stress theory to develop three hypotheses which help us capture the relationship between conversion therapy and mental wellbeing. Next, we describe our research methodology and concept measurements before interpreting the results of our descriptive and causal analyses. Finally, we reflect on the quality and limitations of our investigation and discuss important policy implications of our findings.

Literature review

We conducted our literature review by searching for peer-reviewed publications on the topics of conversion therapy practices (CTP) and their mental health impacts on LGBTQ+ individuals. The search focused on articles published in English within the last ten years in leading psychology, psychiatry, and public health journals, complemented by key historical and theoretical sources that were relevant to trace the evolution of CTP.

CTP encompass organized and sustained efforts to suppress or alter non-heterosexual sexual orientations and gender identities that differ from those assigned at birth, often reflecting cisnormative and heteronormative assumptions about sexuality and gender (Meanley, Haberlen, et al., 2020; Salway et al., 2021). The techniques employed in CTP span a broad spectrum of interventions, reflecting shifts in medical and cultural paradigms over time. Early methods included invasive neurosurgical procedures and both surgical and chemical castration aimed at physically altering sexual drives (Huneke, 2022; Rosik, 2003; Rowland, 2005). Aversion therapies, such as electroconvulsive shocks and the administration of emetic drugs, sought to create negative associations with same-sex attraction (Haldeman, 1991). More recent approaches have tended to focus on psychological and spiritual modalities, including hypnosis, counselling, and spiritual rituals intended to realign identity and desire (Roper, 1967). Additionally, techniques like visualization exercises, psychoanalytic therapy, and arousal reconditioning have been used to reprogram sexual responses, illustrating the diversity and evolving nature of these harmful practices (Ashley, 2023). It is important to recognize that CTP constitutes not only a harmful practice but also an expression of structural discrimination and violence against LGBTQ+ individuals (Trispiotis and Purshouse, 2022). What distinguishes it from other forms of discrimination, however, is that its primary objective is not humiliation or marginalization as an end in itself, but rather the alteration of one's sexual or gender identity. While the psychological consequences of CTP and other discriminatory practices often manifest similarly — through

damage to emotional well-being — the key variation lies in factors such as intensity, frequency, and the degree of institutional or reinforcement.

Keeping this in mind, our research requires a careful consideration of how exactly exposure to CTP worsens mental health amongst LGTBQ+ people. Much of this relationship can be explained by CTP being fundamentally rooted in the rejection of a person's core identity and often carried out through coercive, emotionally harmful means. By suppressing same-sex attractions and gender identities that do not align with cisnormative expectations, CTP communicates to individuals — implicitly and explicitly — that their authentic selves are unacceptable. This message fosters a range of psychological harms, including confusion, guilt, shame, depression, social withdrawal, and increased suicidality (Mercer, 2017). Particularly damaging are the coercive elements involved in many CTP experiences, such as threats of abandonment, loss of familial love, and spiritual condemnation, which are especially potent when the individual lacks alternative support systems. Research highlights that individuals raised in non-affirming religious or cultural environments are more vulnerable to these harms, as they are often deprived of the protective benefits of social belonging and positive self-appraisal (Meanley, Stall, et al., 2020). Moreover, scholars have drawn attention to the post-traumatic stress symptoms frequently experienced by individuals following CTP (Meanley, Haberlen, et al., 2020). These may result not only from the coercive nature of the practices themselves, but also from the prolonged internal conflict and psychological fragmentation that emerge when individuals realize they have not "changed" in the way their families, communities, or faith-based institutions demanded. This realization often leads to deep shame and a sense of personal failure, further reinforcing feelings of worthlessness and self-blame. First-person accounts illustrate the intensity of these effects — ranging from emotional numbness and trauma symptoms to a complete resignation toward life (Horner, 2010). The cumulative impact of being subjected to non-affirming messages, institutionalized shame, and social isolation contributes to deteriorating mental health. Therefore, CTP functions not as a therapeutic practice, but as a source of psychological trauma, with consequences that often persist into adulthood and require long-term healing.

Strikingly, the adverse effects that exposure to CTP has on the mental health of LGBTQ+ individuals have been investigated almost exclusively in the US. Meanley, Haberlen, et al. (2020) find that their sample — predominantly non-Hispanic white men with a mean age of 62.6 — includes 15% who reported prior exposure to CTP. In multivariable models, these men were significantly more likely to exhibit depressive symptoms and above-average levels of internalized homophobia. Furthermore, men who had undergone CTP had 2 to 2.5 times higher odds of reporting one or more psychosocial conditions compared to those without such a history. Similar findings are presented by Ryan et al. (2018), who show that both moderate and high levels of parent-initiated attempts to change a participant's sexual orientation during adolescence were associated with more severe mental health issues in young adulthood. Specifically, those who experienced sexual orientation change efforts (SOCE) — particularly those involving external conversion attempts — were more likely to report suicidal ideation, suicide attempts, and elevated levels of depression. Ogunbajo et al. (2022) report related results: a history of forced participation in CTP within religious institutions was significantly associated with increased odds of depressive symptoms and suicidal thoughts.

With regard to data from Europe, the UK Government's National LGBT Survey provides insight into the prevalence and nature of CTP experiences (UK Government, n.d.). Among respondents who reported undergoing such practices, 51% identified faith organizations as the source, followed by healthcare professionals (19%),

parents (16%), other individuals or organizations (14%), and community members (9%). The data also reveal disproportionate exposure among religious and ethnic minorities: 27% of Muslim, 16% of Jewish and Hindu, and 15% of Sikh respondents reported having experienced or been offered CTP, compared to 7% of non-religious individuals. Black (17%), Asian (16%), and Other ethnic groups (18%) also reported higher exposure than White respondents (7%). While men (8%) were slightly more likely than women (6%) to report such experiences, minimal variation across age groups suggests that CTP is not confined to the past. Reported motivations include religious conflict, internalized stigma, fear, negative same-sex experiences, and external pressure from families, religious institutions, or therapists. However, the report does not present empirical research from the UK directly linking CTP to mental health outcomes. Instead, it relies on international findings — primarily from the United States – to illustrate the psychological harms of such practices.

This lack of Europe-specific evidence reflects a broader trend in the existing literature, which remains disproportionately focused on the United States. For instance, *The Lancet*, one of the most influential journals in medicine and psychology, frequently centres its reports and editorials on the U.S. context when addressing CTP (Adelson et al., 2022; The Lancet, 2015) While the available research offers valuable insights, it overwhelmingly focuses on U.S. populations (Meanley, Haberlen, et al., 2020; Ryan et al., 2018). Even studies examining non-U.S. populations — such as those by Ogunbajo et al. (2022) and Salim et al. (2024) — do not include analyses specific to the European Union, leaving a notable gap in the literature.

This research gap is significant because the context of CTP in the United States differs noticeably from that in Europe. In the U.S., the phenomenon predominantly arises from religious, Christian communities – estimates suggest that approximately 81% of individuals subjected to CTP received it from a religious leader (Blosnich et al., 2020). However, this pattern may not translate directly to the European context, where religious affiliation is generally more secularized and mediated by state institutions, and where practices may occur across a broader range of formal and informal settings.

The legal landscape also varies considerably: the U.S. Supreme Court frequently issues rulings suggesting that bans on CTP may be unconstitutional, whereas in Europe, the prospect of banning CTP is more tangible, with several countries having already enacted such prohibitions (de Groot, 2024; Liptak, 2025). These differences inevitably influence the lived experiences of those undergoing CTP. In particular, variation in legal enforceability and institutional oversight may influence whether CTP occurs in more formalized or informal settings, as well as the extent to which individuals are protected from such practices.

Thus, the objective of our research to look into the prevalence of CTP across Europe and its effect on mental wellbeing amongst European LGBTQ+ individuals fills a significant research gap.

Theoretical Framework

To follow this objective and understand the effects of CTP, we draw upon Minority Stress Theory (MST) as conceptualised by Meyer (2003) which helps us explain differences in mental health outcomes between distinct subgroups within the LGBTQ+ community. The theory essentially describes Minority Stress to originate from unique stressors like experiencing prejudice, stigma, and discrimination which cause mental health problems (Frost and Meyer, 2023; Meyer, 2003). Meyer differentiates between three stress processes, ranging from distal to

proximal processes: '(a) external, objective stressful events and conditions (chronic and acute), (b) expectations of such events and the vigilance this expectation requires, and (c) the internalization of negative societal attitudes' (Meyer, 2003, p. 5). According to MST these stress processes collectively contribute to higher rates of mental health problems, such as depression, anxiety, and suicidality, among LGBTQ+ individuals when compared to heterosexuals (Frost and Meyer, 2023; Meyer, 2003). Especially relevant for our research is the distal stress process of CTP. CTP can be understood as a distal stressor, as it constitutes an external and objective form of identity-based harm imposed on LGBTQ+ individuals. Unlike proximal stress processes, which involve internalized stigma or expectations of rejection, CTP represents a direct, externally enacted attempt to alter or suppress an individual's sexual orientation or gender identity. As such, it functions as a concrete manifestation of societal stigma, operating through coercive practices that directly target the individual.

H1: *Experiencing CTP leads to worse mental health outcomes in LGBTQ+ individuals compared to those that have not experienced it.*

However, the impact of CTP goes beyond the initial event, as distal stressful processes lead to more proximal stress, such as heightened expectation of rejection, internalised stigma and concealment of identity (Frost and Meyer, 2023; Meyer, 2003). The experience of CTP influences how individuals expect the world to be, how they see themselves fit into this world, and therefore how they present themselves to the world, reinforcing concealment and shame. This concealment can result in rumination, a psychological process in which one keeps thinking about the causes and consequences of distress. Rumination prolongs the experienced exposure to stress and increases the chance of developing symptoms of depression (Frost and Meyer, 2023; Meyer, 2003; Sarno et al., 2020). CTP, therefore, works through the internalisation of stigma characterised by the concealment of identity, causing rumination, negatively affecting mental health. This causal mechanism results in the following hypothesis:

H2: *Concealment of identity mediates the relationship between CTP and mental health.*

Additionally, building on MST theory, we hypothesise that the effect of CTP on mental health is particularly severe for transgender individuals, as they are subject to distinct stressors and may experience more pervasive rumination because of increased identity concealment. Unlike sexual minorities, transgender individuals experience stressors such as misgendering and the invalidation of gender-identity (Frost and Meyer, 2023; Meyer, 2003), which could have different and more severe effects (Frost and Meyer, 2023). Moreover, CTP, particularly through its impact on openness, may affect sexual and gender minorities differently. For transgender individuals, being open about gender identity often involves visual cues, such as clothing, hairstyles, and sometimes physical transition (Scandurra et al., 2019). Because these forms of expression are publicly observable, openness in one setting possibly leads to openness in all settings, meaning that concealing one's gender identity in one area of life, often means that it is concealed in every area of life (Scandurra et al., 2019). This all-or-nothing component of openness for transgender individuals results in a broader concealment of identity following CTP, intensifying rumination and worsening mental health outcomes. We therefore hypothesise:

H3: *Being part of a gender minority moderates the relation between CTP and mental health, such that being part of a gender minority leads to worse mental health after CTP compared to sexual minorities.*

To strengthen the internal validity of our findings and accurately isolate the psychological effect of CTP, we included a series of theoretically grounded control variables. For this reason, we control for sociodemographic

factors such as age, education level, socioeconomic status, disability, and refugee or ethnic minority background. These variables are relevant since people from different minority backgrounds, unrelated to gender or sexuality, may face varying forms of discrimination, which, in turn, can negatively affect mental wellbeing (Kirkbride et al., 2024). Additionally, we account for exposure to discrimination and violence, which MST identifies as distal stressors and thus directly affect mental health and may confound the relationship between CTP and depression (Frost and Meyer, 2023; Meyer, 2003). Finally we include a control for legislative CTP bans, since institutional protections can mitigate the frequency and perceived legitimacy of these practices. By incorporating these controls, we aim to isolate the psychological harm attributable to CTP.

Research Design and Methodology

As previously mentioned, the aim of this paper is to describe the variation in CTP prevalence in Europe, and then measure the relationship between exposure to CTP and mental health outcomes. This analysis will comprise data collected from the EU LGBTIQ Survey III in 2023, which is a multi-country survey on the experiences of lesbian, gay, bisexual, transgender and intersex as well as non-binary and other non-gender conforming people across 30 different countries in Europe. The sample consisted of LGBTQ+ individuals aged 15 or older, who, at the time of the survey, lived in an EU member state as well as Albania, Serbia or North Macedonia. Additionally, the total number of respondents to the survey were 100,577 people. Participants to the survey were recruited via an availability sampling method, which is a form of non-probability wherein participants are selected based on their availability and ease of access for the researcher.

Moreover, the research design is a cross-sectional analysis of CTP and mental health outcomes. As this study relies on a large, cross-national survey dataset, it benefits from a high degree of statistical power. The EU LGBTIQ Survey III employs standardized questions and a broad sampling frame, allowing for systematic comparison across countries. However, as the data are based on a non-probability sampling strategy, the findings should not be interpreted as fully representative of all LGBTQ+ individuals in Europe. To improve comparability across countries and partially adjust for differences in sample composition, we apply country-level weights in our analysis. We estimate multiple linear regression (ordinary least squares, OLS) models to examine the relationship between CTP and mental health outcomes. All analyses are conducted in SPSS.

In our study, we have selected the following variables for our research: CTP exposure as the independent variable (IV) and mental health outcomes as the dependent variable (DV), while controlling for countries where CTP is banned. The IV is defined as any attempt to change an individual's sexual orientation or gender identity. In the dataset, this variable asks respondents if they have experienced such practices overall. Responses are coded as 0 ("No") and 1 ("Yes"). Additionally, we have included the different types of CTP as the IV, which are subcategories of the main one. These different types include intervention by family members, psychological or psychiatric treatment, medication, physical violence, sexual violence as well as verbal abuse or humiliation. The responses are also coded as a dummy variable.

To assess the recent mental health status of LGBTQ+ respondents, this study utilizes a self-reported variable drawn from the survey. This variable provides insight into the recent mental health status of LGBTQ+ individuals. This reflects how frequently the respondent has felt downhearted or depressed in the past two weeks, on a scale

ranging from 1 (“All the time”) to 6 (“At no time”), with lower scores indicating more frequent depressive symptoms. The responses within the dataset included -99 (“Don’t know”) and -96 (“Prefer not to say”). These observations with missing values on key variables were excluded from the analysis, because they do not reflect accurate mental health status of LGBTQ+ individuals. In addition, including them would obscure or distort the actual relationship between CTP and its impact on mental health.

Furthermore, our analysis includes control variables. As cross-sectional research designs typically have low internal validity, the introduction of control variables is crucial to prevent the possibility of a spurious relation. To account for legislative differences across countries, our study includes a control variable indicating whether CTP are banned in the respondent’s country of residence. Other variables that can be used for controls are age group, education, and socioeconomic status, which are useful for controlling for potential confounding factors. Additionally, other control variables were included, such as religion, exposure to discrimination or violence, disability, and whether the respondent is a minority in terms of ethnicity, refugee status or skin colour. These variables were recoded to dummy variables, whilst also excluding non-responses. As such, by analyzing these variables, our study aims to deeply understand the impact of CTP on the mental health of LGBTQ+ individuals across different European contexts. We include respondents from all countries in the dataset, regardless of whether conversion therapy practices are legally banned, and control for this variation using a binary country-level variable indicating the presence of a ban. This allows us to account for institutional differences while still capturing the broader variation in experiences across contexts where enforcement and informal practices may differ.

We include moderating variables and interaction terms to capture intersecting forms of identity-based marginalization. Specifically, we examine whether a respondent identifies as a part of a gender minority, a sexual minority, or both, which allows us to explore how the effect of gender identity or sexual orientation shapes experiences with CTP practices and related mental health outcomes. To operationalize these, we constructed three identity-based variables. The first variable is identification with a gender minority, which in this case only included transgender individuals. Prior research has found that transgender individuals face more discrimination (Evje et al., 2024). However, only including those that identify as transgender is a large limitation, as our analysis excludes non-binary or gender-diverse respondents. The second variable includes sexual minorities, including those that identify as gay, bisexual, lesbian, pansexual and queer, whilst the third variable includes identification with both distinct categories. These variables were constructed from various survey questions to create a binary variable with 0 (“No”) and 1 (“Yes”). Interaction terms were then constructed to assess moderating effects in the regression. Thus, we excluded the different types of CTP for the sake of simplicity.

Lastly, we include lack of openness about one’s LGBTQ+ background as a mediating variable between the relationship of CTP and mental health outcomes. This variable was constructed from various survey items, in which respondents were asked whether they conceal their gender identity or sexual orientation in specific contexts and areas, to create one continuous variable. These survey items asked whether respondents avoid certain places, such as their home, school, workplace, restaurants and other public premises. This newly constructed variable is from a scale from 0 (“Nowhere”) to 10 (“Everywhere”). As aforementioned in the hypothesis, we aim to see if exposure to CTP may lead to LGBTQ+ individuals to avoid disclosing their identity. In turn, concealment of their identity can contribute to poorer mental health outcomes, such as internalized stigma and increased depression. Thereby, we employ a mediation model in our multiple linear regression whereby CTP influences openness, which

then affects mental health. This allows us to assess whether the harmful effects on mental health due to CTP operate partly through their impact on identity concealment.

Building on this methodological foundation, the following section presents the empirical analysis of CTP prevalence and forms across European countries. This step provides the necessary descriptive overview before turning to the statistical examination of how CTP exposure and related mechanisms, such as identity concealment, affect mental health outcomes.

Data Analysis: Variation Across European Countries

Analysis of CTP prevalence across 30 European countries reveals significant national disparities in exposure among LGBTQ+ respondents (see *Table 1*). Respondents were asked whether they had ever experienced any form of CTP, which included religious, familial, medical, or violent attempts to change their identity. Overall, 31.6% of respondents reported having experienced some form of CTP, while 68.4% had not. These practices, intended to suppress or alter an individual's gender identity or sexual orientation, vary widely in regard to the type of CTP. Notably, the most common type of CTP is verbal abuse or humiliation, with 19.6% of LGBTQ+ individuals having reported having experienced it. Other types of CTP were also reported, although the frequencies were much lower than verbal abuse. For instance, the second most prevalent type was interventions initiated by family members, reported by 14% of respondents. In addition, 3.9% of respondents reported having experienced psychological or psychiatric treatment, whilst 3.5% of LGBTQ+ individuals experienced physical violence and 2.2% experienced sexual violence. Lastly, the least common type of CTP was medication, with 0.8% of respondents having experienced the use of medication intended to alter their identity.

Additionally, experiences with CTP also varied between countries in Europe, suggesting that national and cultural differences may explain the occurrence of such practices, as shown in *Table 1*. Overall, the countries with the highest prevalence of CTP were the Czech Republic with 43.4%, Greece with 42.3%, Cyprus with 40.5%, Slovakia with 42.7%, and Lithuania with 41.1%. On the other hand, the countries with the lowest number of reporting of CTP are Italy with 21.9%, the Netherlands with 21.9%, and France with 22.0%. However, the analysis of CTP reveals not only wide differences in overall prevalence, but also significant variation in the specific forms and severity of CTP. For instance, the verbal abuse form of CTP was the highest reported in Slovakia (29.9%) and Lithuania (27.2%), whilst countries like Serbia, and Hungary showed the highest prevalence in psychological or psychiatric forms of CTP. Family intervention methods were the most common in the Czech Republic, Greece, Lithuania and Bulgaria, suggesting discriminatory societal views on LGBTQ+ rights. Moreover, medication, whilst the rarest form of CTP, was the most prevalent in North Macedonia, Albania, and Slovakia.

Table 1.

Variation of CTP across European countries

	Type of Conversion Practice							
	Overall	Intervention by family members	Prayer, religious ritual or religious counselling	Psychological or psychiatric treatment	Medication	Physical violence	Sexual violence	Verbal abuse or humiliation
Austria	35.8%	16.1%	6.1%	4.0%	1.0%	3.6%	2.5%	24.0%
Belgium	24.6%	10.4%	4.8%	3.3%	0.8%	3.3%	1.8%	14.5%
Bulgaria	35.6%	19.4%	5.6%	6.3%	0.7%	5.4%	3.1%	22.4%
Croatia	27.8%	11.0%	8.2%	3.5%	0.6%	3.6%	1.7%	17.6%
Cyprus	40.5%	23.3%	13.6%	5.7%	1.2%	6.6%	2.1%	22.1%
Czech Republic	43.4%	27.6%	7.0%	2.9%	0.3%	3.3%	2.1%	25.2%
Denmark	25.8%	9.8%	5.4%	3.1%	1.2%	2.7%	2.4%	13.1%
Estonia	40.6%	23.1%	5.0%	4.0%	0.8%	2.7%	1.9%	24.0%
Finland	35.5%	8.4%	10.7%	2.3%	0.4%	3.3%	3.1%	24.3%
France	22.0%	10.0%	3.5%	2.5%	0.7%	2.9%	1.9%	13.7%
Germany	35.1%	15.5%	6.4%	4.0%	0.9%	3.8%	2.9%	22.5%
Greece	42.3%	28.4%	10.1%	6.0%	0.6%	4.6%	1.6%	20.9%
Hungary	38.4%	18.3%	7.9%	6.5%	0.8%	3.8%	2.3%	24.2%
Ireland	32.2%	12.6%	7.1%	3.7%	0.9%	4.1%	3.8%	20.9%
Italy	21.9%	9.3%	4.4%	4.4%	0.7%	2.0%	0.8%	12.8%
Latvia	33.9%	15.4%	6.9%	3.9%	1.4%	6.0%	1.9%	25.7%
Lithuania	41.1%	20.8%	7.7%	4.1%	1.1%	4.8%	2.1%	27.2%
Luxembourg	24.9%	12.1%	3.5%	4.0%	0.7%	2.4%	1.9%	16.1%
Malta	30.2%	13.2%	10.2%	3.6%	0.9%	1.8%	1.8%	15.9%
Netherlands	21.9%	7.6%	4.5%	3.3%	1.1%	3.0%	2.8%	12.7%
Poland	36.3%	16.7%	14.3%	4.3%	0.5%	3.9%	1.4%	21.7%
Portugal	27.6%	12.2%	5.7%	4.9%	1.4%	3.4%	2.0%	16.3%
Romania	32.0%	17.1%	10.3%	5.8%	1.0%	4.8%	1.3%	21.0%
Slovakia	42.7%	20.3%	11.8%	5.3%	1.6%	4.8%	1.8%	29.9%
Slovenia	27.3%	11.6%	4.4%	2.4%	0.5%	2.2%	1.5%	17.5%
Spain	25.7%	11.8%	5.0%	4.5%	1.2%	2.8%	1.7%	14.7%
Sweden	26.7%	9.2%	6.3%	2.7%	0.7%	3.0%	2.4%	15.6%
North Macedonia	37.4%	14.7%	6.8%	5.4%	1.8%	6.4%	2.4%	26.8%
Serbia	35.5%	13.3%	8.9%	7.0%	1.8%	5.9%	2.4%	24.5%
Albania	38.7%	17.8%	10.3%	5.5%	2.0%	5.5%	3.2%	18.6%

These differences in prevalence raises the question as to why certain countries exhibit higher rates of CTP amongst LGBTQ+ individuals when others have lower rates. This can be explained by a variety of factors, such as the strength or the absence of legal bans on CTP, the role of religion as well as the protection of LGBTQ+ rights and societal acceptance of diverse sexual orientations and gender identity (Veinan, 2022). For instance, low rates of CTP in France and Spain may be attributed to legal bans on such practices (de Groot, 2024). However, while some countries like Malta and Germany also have legal bans on CTP, the reporting rates are still quite high, suggesting that legal bans are not the only successful method of protecting LGBTQ+ rights. For instance, intervention by family members is high in these two countries, suggesting that legal oversight and enforcement may be difficult to ensure that LGBTQ+ rights are upheld. Additionally, societal acceptance of LGBTQ+ rights

within a country can also explain the variation in the prevalence of CTP. The Netherlands exhibits low rates of CTP, which may be attributed to the broader societal context of the country. Moreover, whilst Malta is widely considered to be one of the most progressive countries regarding LGBTQ+ rights and was the first country to ban CTP (Harwood, 2024), the country still exhibits high rates of CTP, with 30.2% of respondents saying they have been exposed to a practice. Nevertheless, these high rates may be attributed due to recent progressive changes in public opinion (Harwood, 2024). LGBTQ+ individuals may have experienced CTP prior to this shift in public opinion and introduction of the ban on CTP. Lastly, Hungary shows increasingly high rates of CTP practices, with 38.4% of individuals having reported experienced efforts to alter their identity. This may be explained by inadequate legal protection, stigmatization and negative discourse regarding LGBTQ+ individuals in the media (Tamássy, 2024).

Experiences with CTP also varied widely in relation to sexual orientation as shown in *Table 2*. Heterosexual or straight individuals reported the highest overall exposure to CTP, with 43.0% of individuals. Within the context of this research, this group reflects individuals who identify themselves as heterosexual but are included as they have been assigned LGBTQ+ status due to gender identity, such as transgender or non-binary individuals. This group is followed by pansexual individuals, with 36.9% of respondents having reported experience with CTP, while 36.3% of other orientations and 32.3% of lesbian individuals mention being exposed to such practices. The lowest percentages, but still alarming, were gay individuals with 30.2%, asexual people with 31.1%, and bisexual respondents with 28.7%.

Table 2.
Sexual orientation and overall exposure to CTP

		Sexual Orientation						
		Lesbian	Gay	Bisexual	Pansexual	Asexual	Heterosexual	Other
Experiencing conversion practices overall	Yes	32.3%	30.2%	28.7%	36.9%	31.1%	43.0%	36.3%
	No	67.7%	69.8%	71.3%	63.1%	68.9%	57.0%	63.7%

There are also great variations within gender identity, which are shown in *Table 3* below. Transgender individuals reported the highest exposure to CTP practices overall, aligning with the heterosexual variable. 51.0% of transgender men and 46.4% of transgender women reported experiencing CTP to alter their gender identity. A large percentage of non-binary people were also exposed to these harmful practices, with 38.1%. Cisgender women experienced CTP the least, with 26.5%. Multiple previous studies have found that trans individuals experience more discrimination and violence than cisgendered individuals (Evje et al., 2024). Overall, these high percentages are alarming and highlights the need for CTP bans across all European countries and protective policies that would ensure the safety and well-being of LGBTQ+ individuals.

Table 3.
Gender identity and overall exposure to CTP

		Gender Identification and Expression					
		Cisgender women	Cisgender men	Trans women	Trans men	Non-binary and gender diverse	Other (not trans, not cis)
Experiencing conversion practices overall	Yes	26.5%	27.5%	46.4%	51.0%	38.1%	35.0%
	No	73.5%	72.5%	53.6%	49.0%	61.9%	65.0%

Nevertheless, the dataset has some limitations. For example, respondents were asked to select the country in which they currently reside. This may not correspond to the country where they experienced CTP. Thus, some LGBTQ+ individuals may have migrated to more accepting and protective countries after experiencing harmful practices elsewhere. Additionally, certain groups are underrepresented in the data, such as intersex individuals or people who live in rural or isolated areas. Despite these limitations, the data still offers valuable insights into how experiences with CTP affect the mental health of LGTBQ+ individuals.

Data Analysis: Association with Mental Health

In this section, the relationship between CTP and mental health outcomes of LGBTQ+ individuals will be examined. *Table 1* shows the effects of different types of CTP on mental health, which also includes control variables and the moderator variables — shown through a binary variable of gender and sexual minority as well as the interaction terms — and the mediator variable, which is lack of openness. The results are shown below in *Table 4.*

As seen in *Table 4*, experiencing CTP has a consistently negative effect on mental health, as is hypothesized. Model 1 solely analyses the effect of the different CTP subcategories, excluding all control variables, moderators and the mediator. Overall CTP exposure is also excluded, as including it would alter the effects and significance of the different types of CTP. The results in this model show a significant association between experiences with CTP and feelings of depression across all different types, indicating that those that have been exposed to CTP to alter their identity report lower scores on the scale, which corresponds with feeling depressed more frequently. However, there are variations in regard to the severity of depression. As verbal abuse and humiliation was the highest reported form of CTP, it does not come as a surprise that it has the harshest effect on LGBTQ+ individuals' mental health ($B = –0.423$, $p < 0.001$). In addition, the second most severe effect on mental health comes from experiencing sexual violence ($B = –0.420$, $p < 0.001$). On the contrary, intervention by family members as a form of CTP suggests the least harsh effect on the mental health outcomes of LGBTQ+ individuals ($B = –0.109$, $p < 0.001$), as the coefficient is the lowest throughout all different subcategories.

Table 4.

Multivariate linear regression showing the effect of CTP on mental health

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Constant	4.264*** (0.005)	2.190*** (0.030)	2.186*** (0.030)	2.184*** (0.030)	2.054*** (0.033)	2.200*** (0.030)	2.413*** (0.031)
Experiencing conversion practices, overall	—	—	–0.229*** (0.011)	–0.226*** (0.011)	–0.263*** (0.025)	–0.222*** (0.011)	–0.193*** (0.011)
Conversion practice: Intervention by family members	–0.109*** (0.017)	–0.050** (0.016)	—	—	—	—	—
Conversion practice: Prayer, religious ritual or religious counselling	–0.244*** (0.022)	–0.122*** (0.021)	—	—	—	—	—
Conversion practice: Psychological or psychiatric treatment	–0.256*** (0.030)	–0.183*** (0.028)	—	—	—	—	—
Conversion practice: Medication	–0.263*** (0.066)	–0.077 (0.061)	—	—	—	—	—
Conversion practice: Physical violence	–0.277*** (0.033)	–0.160*** (0.030)	—	—	—	—	—
Conversion practice: Sexual violence	–0.420*** (0.043)	–0.125** (0.040)	—	—	—	—	—
Conversion practice: Verbal abuse or humiliation	–0.423*** (0.015)	–0.179*** (0.014)	—	—	—	—	—
Age group	—	0.323*** (0.005)	0.323*** (0.005)	0.323*** (0.005)	0.324*** (0.005)	0.324*** (0.005)	0.304*** (0.005)
Education	—	0.039*** (0.007)	0.038*** (0.007)	0.039*** (0.007)	0.031*** (0.007)	0.035*** (0.007)	0.056*** (0.008)
Religiosity	—	0.063*** (0.010)	0.062*** (0.010)	0.062*** (0.010)	0.055*** (0.010)	0.060*** (0.010)	0.075*** (0.010)
Socioeconomic status	—	0.382*** (0.006)	0.386*** (0.006)	0.386*** (0.006)	0.382*** (0.006)	0.385*** (0.006)	0.377*** (0.006)
Discrimination	—	–0.256*** (0.010)	–0.267*** (0.010)	–0.268*** (0.010)	–0.252*** (0.010)	–0.261*** (0.010)	–0.187*** (0.010)
Disability	—	–0.682*** (0.009)	–0.684*** (0.009)	–0.684*** (0.009)	–0.670*** (0.009)	–0.681*** (0.009)	–0.670*** (0.010)
Ethnic minority	—	–0.065*** (0.019)	–0.070*** (0.019)	–0.070*** (0.019)	–0.069*** (0.019)	–0.071*** (0.019)	–0.058** (0.019)
Refugee status	—	–0.039 (0.85)	–0.088 (0.085)	–0.085 (0.085)	–0.072 (0.085)	–0.086 (0.085)	–0.160 (0.086)
Minority in terms of skin colour	—	–0.177**a* (0.031)	–0.182*** (0.031)	–0.184*** (0.031)	–0.181*** (0.031)	–0.183*** (0.031)	–0.192*** (0.032)
Countries with a ban on conversion practices	—	–0.014 (0.009)	–0.012 (0.009)	–0.012 (0.009)	–0.011 (0.009)	–0.012 (0.009)	–0.051*** (0.009)
Gender minority	—	—	—	0.293*** (0.074)	—	—	—
Interaction (gender minority * experience with CTP	—	—	—	–0.389*** (0.111)	—	—	—
Sexual minority	—	—	—	—	0.176*** (0.017)	—	—
Interaction (sexual minority * experience with CTP)	—	—	—	—	0.058* (0.027)	—	—
Gender and sexual minority	—	—	—	—	—	–0.166*** (0.033)	—
Interaction (gender and sexual minority * experience with CTP)	—	—	—	—	—	–0.012 (0.047)	—
Not being open	—	—	—	—	—	—	–0.078*** (0.002)
N	100 535	91 173	91 173	91 173	91 173	91 173	86 575
R-Squared	0.026	0.196	0.194	0.195	0.196	0.195	0.211

Dependent variable: Feeling downhearted or depressed in the past two weeks.

Note: standard error is shown in parentheses. Values are unstandardized coefficients * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

These findings suggest that our first hypothesis (H1) is supported, given that experiencing CTP leads to worse mental health outcomes in LGBTQ+ individuals. Nevertheless, the R-squared value for Model 1 is 0.026, which means that only 2.6% of the variation in the dependent variable is explained by the independent variables. This low value suggests that whilst the results are statistically significant, many other factors outside of this model influence the outcome of depressive feelings.

Model 2 adds a set of control variables — such as age group, education, religiosity, socioeconomic status, discrimination, disability, ethnic and racial minority, refugee status and ban on CPT — to better isolate the effect of conversion practices. Even with the inclusion of control variables, all categories of CTP still have a statistically significant negative effect on mental health, with the exception of medication. As expected, the inclusion of control variables attenuated the effect of CTP on mental health across all variables. For instance, the introduction of control variables lowered the coefficient for medication from –0.263 to –0.077 in the second model, whereby the significance disappears. Nonetheless, the other variables remained significant. Verbal abuse or humiliation is still the form of CTP that has the harshest effect on LGBTQ+ individuals' mental health, although it did decrease ($B = –0.179$, $p < 0.001$). Overall, this reduction in coefficients suggests that part of the association between CTP and depression can be accounted for by other factors, notably discrimination ($B = –0.256$, $p < 0.001$), disability ($B = –0.682$, $p < 0.001$) and minority status in regard to skin colour ($B = –0.177$, $p < 0.001$). Thus, this emphasizes how multiple forms of marginalization compound psychological distress.

Model 3 shows the association between overall experience with CTP on mental health. This model also includes the same control variables as in Model 2. This model shows that experiencing CTP has a negative association with mental health ($B= –0.229$, $p < 0.001$). This model was included in the regression analysis to be able to assess the potential mediating effect of not being open about one's sexual or gender identity in the relationship between experiencing CTP and mental health outcomes. Thus, when looking at the coefficient in Model 7, we can use this coefficient to determine whether there is a mediating effect or not. This is discussed in more detail below.

Model 4 shows that being part of a gender minority moderates the relationship between CTP and mental health, such that gender minorities have worse mental health after CTP compared to other LGBTQ+ individuals. Let us first consider the simple effects of gender minority as a control variable. The fourth model shows that being a gender minority has a statistically significant ($p < 0.001$) positive impact on levels of depression. More specifically, gender minorities score 0.293 higher on the depression scale, which ranges from 1 to 6, with higher scores indicating less frequent feelings of depression. Additionally, the interaction variable shows that being part of a gender minority has a statistically significant ($p < 0.001$) moderating effect on the relationship between CTP and mental health. On average, gender minorities score –0.389 lower on the depression scale after conversion therapy, compared to other LGBTQ+ individuals. Thus, gender minorities experience a stronger negative mental health impact from CTP. These findings support our third hypothesis (H3) as gender minority status moderates the relationship between CTP and mental health in such a way that gender minorities are more severely affected by CTP.

This stronger effect among gender minorities may reflect differences in the social visibility and contestation of gender identity compared to sexual orientation. Unlike many sexual minorities, whose identities can be more easily concealed in certain contexts, gender minorities often face more immediate and visible forms of

misrecognition and social sanction, making concealment both more difficult and more psychologically costly. In addition, while sexual minority identities have been increasingly normalized in many European contexts and often remain socially legible within a binary gender framework, gender diversity more directly challenges this framework and thus remains more heavily stigmatized and less institutionally supported. This may intensify the impact of coercive practices such as CTP.

Model 5 adds the sexual minority variable and its interaction with conversion therapy, revealing that sexual minorities have lower overall levels of depression and experience a less severe impact from conversion therapy compared to other LGBTQ+ individuals. The sexual minority variable has a statistically significant ($p < 0.001$) positive effect on mental health ($B = 0.176$). The interaction variable is also statistically significant ($p < 0.05$) and has a positive effect on mental health ($B = 0.058$), meaning that it weakens the relationship between CTP and mental health. This shows that, even though CTP still results in worse mental health, sexual minorities experience less severe effects. This unexpected, surprising finding should be researched further; however, this goes beyond the scope of this paper.

Model 6 includes the combined gender and sexual minority variable along with its interaction term and indicates that individuals who belong to both minority groups experience higher levels of depression overall but shows no significant interaction. Belonging to both minority groups is associated with a statistically significant ($p < 0.001$) decrease ($B = –0.166$) in overall mental health. However, the interaction term shows only a small decrease on the depression scale ($B = –0.012$), which is not statistically significant. This means that the combined minority status has no meaningful impact on the relationship between CTP and mental health.

Furthermore, Model 7 incorporates the control variables and the key mediating variable: lack of openness. This model was designed to test whether the negative impact of CTP on mental health outcomes is partially explained through the concealment of one's LGBTQ+ identity ("not being open" in the model). The coefficient for experiencing CTP remains statistically significant with ($B = –0.193$, $p < 0.001$), although it represents a smaller value in comparison to Model 3, whereby the coefficient for overall experience of CTP is –0.229 ($p < 0.001$). This reduction indicates partial mediation, suggesting that some of the harmful mental health effects of CTP operate indirectly through increased identity concealment. Additionally, the mediator has a significant negative association with mental health ($B = –0.078$, $p < 0.001$), confirming that respondents who feel the need to hide their gender identity or sexual orientation report significantly higher levels of depression. This supports our H2, proving that identity concealment as a response to CTP exacerbates depressive outcomes among LGBTQ+ individuals. To conclude, the explanatory power of Model 7 also improves significantly. With an r^2 value of 0.211, this model accounts for over 21% of the variance in depressive symptoms, a relatively strong figure in social science research. Altogether, the findings provide a robust support for both MST and the mediation hypothesis. They highlight that CTP harms LGBTQ+ mental health not only directly, but also indirectly by promoting identity concealment and internalized stigma. These results underscore the importance of policies that go beyond legal bans and aim to cultivate environments where LGBTQ+ individuals feel safe and empowered to live openly.

Validity, Reliability, Generalizability, and Limitations

The internal validity of our study is moderate. The study is based on cross-sectional analysis data, which captures the relationships between variables at a specific moment but cannot establish causal relationships on its own. Therefore, while there is a statistically significant link between the effects of CTP and mental health deterioration among LGBTQ+ people, we cannot say with absolute certainty that one causes the other. The reported mental health problems may in some cases have preceded CTP or been caused by other unmeasured factors. However, we are increasing the reliability of our findings by including several control variables – such as national legislation prohibiting CTP, experience of discrimination, age, education, refugee or ethnic minority status – to reduce the risk of fictitious correlations.

From the perspective of external validity, several limitations should be acknowledged. As the data are based on a non-probability sampling strategy, the findings cannot be interpreted as fully representative of all LGBTQ+ individuals in Europe. In addition, the country-level clustering of the data is not explicitly modelled in the estimation, which may lead to underestimated standard errors. Moreover, the use of a single-level OLS framework does not allow us to distinguish between within-country and between-country effects, meaning that institutional differences may be conflated with individual-level effects. These limitations suggest that the results should be interpreted with caution, particularly when drawing cross-national policy implications.

Despite these limitations, the study's reliability is supported by the large sample size and the consistency of measurements across respondents. The use of standardized questions and response coding enables consistent comparison across countries and subgroups. In addition, our analytical structure — in particular, the classification of types of CTP methods and the use of control variables and interaction terms — is transparent and highly reproducible.

In addition to the limitations discussed above, several further constraints should be acknowledged. The cross-sectional nature of the data remains the main limitation, which does not allow us to determine the time order of their receipt and results. Our study also relies on data obtained from the participants themselves, which may be influenced by biased accounts, the understatement of information, or the effect of social desirability, especially in connection with sensitive experiences such as trauma or mental health problems. In addition, although we check whether CTP is prohibited in the respondent's country of residence, we cannot take into account differences in law enforcement practices and cannot be sure that CTP was performed in the same country where the respondent currently lives. The last important limitation lies in the used dependent variable, which measures depression only for a period of two weeks before the respondent participates in the survey. It can be reasonably argued that a more appropriate dependent variable would be one that measures depression and mental health over a longer period of time, or the presence of such problems in general. This could establish with greater certainty that the mental state due to the experience of CTP has indeed deteriorated on a long-term basis, becoming fixed in the respondent in the form of PTSD or certain social fears/tensions, rather than being a burst phenomenon, since the variable of depression and the moment when CTP was experienced are not specifically related. However, unfortunately, such a variable was not available in the dataset we used. Nonetheless, despite these limitations, our approach allows for a detailed analysis of the connection between CTP and mental health among LGBTQ+ individuals in Europe. This study offers important insights into an under-researched issue and sets the stage for future long-term and cross-sectional research.

Policy Implications

While our findings are based on cross-sectional associations and should not be interpreted causally, they nonetheless provide important indications for policy development. The observed relationship between exposure to CTP — particularly more coercive forms such as physical violence or psychiatric intervention — and poorer mental health outcomes among LGBTQ+ individuals suggests that reducing exposure to such practices may have meaningful implications for well-being.

First of all, the evidence that exposure to CTP — specially forms such as physical violence or psychiatric intervention — is strongly associated with poorer mental health outcomes among LGBTQ+ individuals underscores the need for comprehensive and enforceable prohibitions on all forms of CTP. The policy should go beyond narrowly defined prohibitions that apply only to minors or to interference without consent. In other words, European States should adopt a broad legal framework criminalizing all forms of CTP, regardless of age or intended consent.

Second, the persistence of CTP practices in countries where formal bans exist indicates that legislation alone may be insufficient. In some countries where bans exist, such as Cyprus or Greece, CTP practices are still very common, showcasing the importance of investing in awareness campaigns, training health professionals and educators, and building confidential reporting and victim support systems. Law enforcement agencies cannot rely only on formal prohibitions but must also work with communities to change harmful cultural norms.

Moreover, differences in the prevalence of CTP in different countries and among specific subgroups, such as transgender people and ethnic minorities, emphasize the need for policies that consider the interests of different subgroups and cultures. Mental health services should become more accessible and adjusted specifically to the realities of LGBTQ+ people, especially those who face various forms of marginalization. The financing of public initiatives, the creation of special state monitoring services, and the preparation of national plans for the protection of LGBTQ+ individuals can serve as a decisive factor in safeguarding against psychological harm caused by such practices.

Also, policy makers should consider preventive strategies aimed at addressing the root causes of CTP. This includes reforming educational programs to promote inclusivity, supporting educational programs for parents, and combating public discourse that pathologizes LGBTQ+ identity. The fact that verbal and psychological forms of CTP negatively affect mental health indicates that stigmatization is still very much ingrained in everyday life. Therefore, legal reform has to be complemented by active social and cultural activities aimed at creating a more receptive society.

In summary, it is important to emphasize that not all aspects of the legislative process must rest solely on the shoulders of politicians, who are often constrained by the public opinion. Empirical evidence demonstrates that the judiciary can play a proactive role in safeguarding against discrimination. This, in turn, underscores the importance of actively involving activist organizations in initiating strategic litigation and mobilizing resources to support plaintiffs. When judicial outcomes are favourable to the LGBTQ+ community — such as the ruling by the Constitutional Court in Lithuania in April 2025 — they can secure fundamental rights and protections for marginalized groups (*Absence of Same-Sex Partnerships in Lithuania "Unconstitutional", Rules Court*, 2025). These legal victories may subsequently lead to a notable shift in public attitudes, with support for previously

stigmatized groups increasing significantly. A suitable example is Iowa in 2009, where the state Supreme Court's decision to legalize same-sex marriage resulted in rapidly growing public acceptance, even among those who had initially opposed the reform (Kreitzer et al., 2014). This suggests that the state need not address every instance of social exclusion through direct policy intervention; rather, it can, to some extent, rely on the socially transformative momentum generated by anti-discrimination rulings. While this approach may ease the administrative burden on state institutions, it nonetheless requires sustained oversight and the implementation of complementary legislative reforms.

Conclusion

In conclusion, this study provides one of the first large scale, cross-national analyses of CTP and their psychological consequences within the European LGBTQ+ community. Drawing on MST, we show that CTP functions as a severe distal stressor that not only directly harms mental health, but also indirectly intensifies distress by promoting identity concealment. Our findings demonstrate that exposure to CTP significantly correlates with more frequent depressive symptoms, particularly among young transgender individuals, whose experiences are shaped by distinct and compounding forms of minority stress such as misgendering and the invalidation of their gender identity. Using a robust multivariate regression model and drawing from a representative EU-wide dataset, we further demonstrate that lack of openness about one's identity mediates the relationship between CTP and mental health outcomes. This suggests that CTP impacts mental wellbeing not only through its traumatic content but also by fostering shame and isolation. Our analysis also reveals that gender minorities experience the most severe psychological effect of CTP, while sexual minorities are comparatively less affected. These findings validate all three hypotheses and underscore the necessity of analyzing the impact of anti-LGBTQ+ practices. While the study's cross-sectional design limits causal claims, and certain groups remain underrepresented, the empirical insights it provides are highly relevant for both academia and policymaking. Legal bans alone are insufficient if not paired with effective enforcement, cultural change, and trauma-informed mental health support. Future research should expand on these findings through longitudinal designs and deeper qualitative inquiry into the lived experiences of CTP survivors. Most importantly, the results make clear that CTP is not a relic of the past but an ongoing form of institutionalized violence, one that urgently requires intervention across all sectors of European, and ultimately global, society.

Conflict of Interests

The authors declare no conflict of interest.

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Exploring the Interplay of Insomnia, Depression and Mediating Factors: An analysis of Pre-Sleep Arousal and Dysfunctional Beliefs and Attitudes about Sleep

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Abstract

This study delves into the relationship between insomnia and depression, examining the mediating roles of pre-sleep arousal and dysfunctional beliefs and attitudes about sleep. The research aims to contribute insights on mediating factors that might partially explain the relationship between insomnia and depression. The comprehensive investigation involved an examination of the direct and indirect effects of insomnia on depression. Utilising self-reported questionnaires, the study explored the mediating impact of both Pre-Sleep Arousal (PSA) and dysfunctional beliefs and attitudes about sleep (DBAS) among 362 Dutch participants. Three hypotheses were formulated. Insomnia (x) has a positive effect (c) on depression (y) (H1). PSA(M1) mediates the relationship between insomnia (x) and depression (y) (H2). DBAS (M2) mediates the relationship between insomnia (x) and depression (y) (H3). Two mediation analyses were run showing significant partial mediations for both PSA and DBAS. All hypotheses were confirmed. Limitations include the lack of differentiation in subscales for PSA and HADS, restricting a nuanced understanding of influential factors. Additionally, the use of questionnaires raises questions about the generalizability of the findings to clinical populations. Future research should consider physiological measures alongside self-reported data. The study advocates for the consideration of further research about pre-sleep arousal and dysfunctional beliefs when treating individuals with both insomnia and depression. These mediating variables hold promise in disrupting the connection between these common syndromes. The findings call for further clinical implementations and additional research funding to replicate and explore these connections more specifically and in greater detail.

Keywords

Insomnia, Depression, Pre-Sleep Arousal, Dysfunctional Beliefs, Sleep

Introduction

Sleep is fundamental to mental health: chronic sleep loss has been linked to a range of psychiatric outcomes, including depression and suicidality (Bei et al., 2018; Olgiati & Serretti, 2022). Insomnia, defined as self-reported challenges in initiating or sustaining sleep, is a major risk factor for persistent depressive symptoms (Meaklim et al., 2023). It is proposed to be associated with depression (Neckelmann et al., 2007), defined as a persistent loss of pleasure or interest in activities, accompanied by a melancholic mood (WHO, 2023). Previous findings indicate that in the case of comorbidity between insomnia and depression, the former is not just a symptom of depression, but a condition that requires its dedicated treatment (Blom et al., 2015). Co-occurrence between insomnia and major depressive disorders is common and brings a worse outcome for both conditions (Bei et al., 2018), making insomnia an important risk factor for persistent depressive disorder (Meaklim et al., 2023). When sleep is chronically disrupted, mood, motivation, and cognitive functioning are all compromised, which can deepen depressive symptoms and, in severe cases, contribute to risk of self-harm (Olgiati & Serretti, 2022). Therefore, understanding the mechanisms behind the connection of these two concepts is of critical value. The connection between insomnia and depression is widely established. For instance, depression was found to be correlated with insomnia severity (Park et al., 2012; Doos et al., 2014), and the betterment of insomnia was closely linked to improvements in depression (Cirino et al., 2019). Hence, detecting early changes in insomnia could be useful to foresee outcomes of depression. At the same time, greater and sustained betterments in depression reliably corresponded to lower levels of insomnia (Bei et al., 2018).

One crucial transdiagnostic process that links insomnia with depression is pre-sleep arousal (PSA). Pre-sleep arousal refers to heightened mental activity, uncontrollable worries, racing thoughts, distressing physical sensations like a racing heart, muscle tension, and jittery nervousness occurring during the pre-sleep period (Nicassio et al., 1985; Hoyniak et al., 2021). Although PSA frequently co-occurs with insomnia, it is conceptually and empirically distinct: insomnia describes the experience of disturbed sleep itself, whereas PSA captures a hyperaroused cognitive–somatic state that precedes and contributes to that disturbance (Nicassio et al., 1985; Palagini et al., 2017). Support for a model of insomnia that includes pre-sleep arousal is well-founded, as the two are significantly correlated (Doos et al., 2014). However, the impact of pre-sleep arousal extends beyond sleep difficulties; it has also been found to increase the risk of clinically significant depressive symptoms (Meaklim et al., 2023). Its function as an underlying mechanism is further evidenced by findings that identified it as a significant partial mediator between depression and fatigue, suggesting it acts as a predictor of symptoms in clinically depressed individuals (Karlson et al., 2010). Depression is a strong predictor of both pre-sleep arousal and sleep quality (Gorgoni et al., 2021). When levels of nocturnal cognitive arousal are lower due to mindfulness-based insomnia therapy, they are predictors of a reduction in depression (Kalmbach et al., 2023). Moreover, when it is tested whether pre-sleep arousal explained the association between insomnia and suicidal ideation, a full mediation of cognitive pre-sleep arousal is found (Olgiati et al., 2022).

Beyond pre-sleep arousal, a second cognitive factor that has consistently been implicated in both insomnia and depression is dysfunctional beliefs and attitudes about sleep (DBAS), which have been shown to correlate highly with both insomnia severity and depressive symptoms. Dysfunctional beliefs about sleep involve faulty beliefs and biased perceptions where insomnia sufferers hold unrealistic sleep expectations and excessive worry, leading to emotional distress and perpetuating the cycle of insomnia (Morin et al., 2007). During dCBT-I (digital

Cognitive Behavioral Therapy to treat insomnia), DBAS partially mediated the effects of dCBT-I on insomnia and changes in the DBAS fully mediated changes on the Hospital Anxiety and Depression Scale (HADS) (Faaland et al., 2023). There is evidence that beliefs and attitudes towards sleep may be involved in sustaining insomnia (Morin et al., 1993) and that changes in dysfunctional beliefs mediate improvements in symptoms of insomnia during CBT-I treatment (traditional CBT to treat insomnia) (Parsons et al., 2021). Not only is there a positive correlation between dysfunctional sleep-related cognitions and insomnia severity, but it was shown that the latter acts as a significant determinant for both sleep-related cognitions and depression (Park et al., 2012). On their own, dysfunctional sleep related beliefs and attitudes were found to predict clinically significant depression (Meaklim et al., 2023). Previous research also found that individuals suffering insomnia were found to have higher levels of both DBAS and PSA when compared to sound sleepers (Palagini et al., 2017). Taken together, these findings suggest that DBAS, like PSA, is closely entangled with both insomnia and depression and may therefore be a plausible candidate mechanism in the relationship between the two.

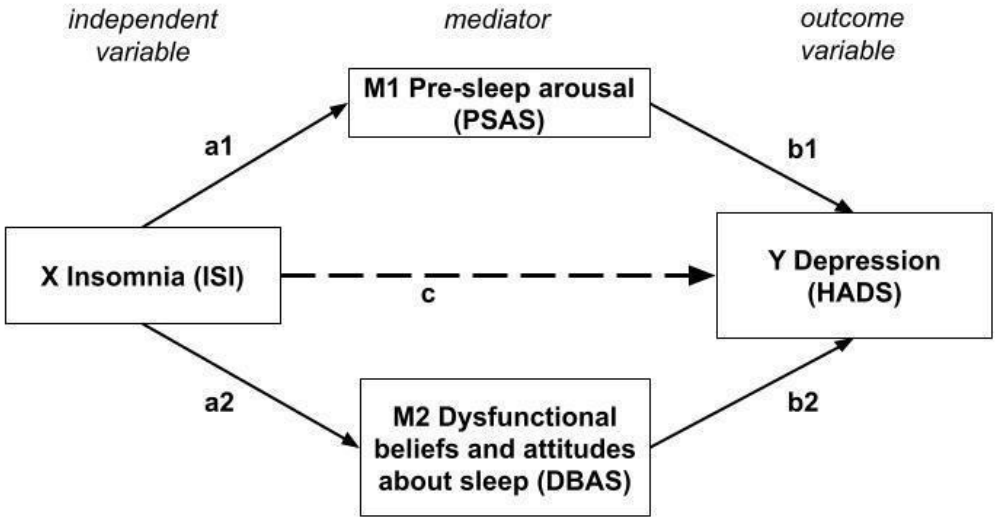
Although the co-occurrence of insomnia and depression is widely established, the specific mechanisms linking the two remain a critical area for investigation. Among the many candidate mechanisms discussed in the literature, pre-sleep arousal (PSA) and dysfunctional beliefs and attitudes about sleep (DBAS) stand out for two reasons. First, both have been independently linked to insomnia severity and to depressive symptomatology (Nicassio et al., 1985; Morin et al., 1993; Palagini et al., 2017). Second, both are explicit targets of evidence-based interventions for insomnia, including cognitive behavioural therapy for insomnia (CBT-I), making them clinically actionable rather than purely descriptive constructs (Parsons et al., 2021; Faaland et al., 2023). However, their specific roles in statistically accounting for the association between insomnia and depression are not yet fully clarified. Clarifying these mechanisms is societally relevant: insomnia and depression are among the most prevalent and disabling mental-health conditions worldwide, and treatments that fail to address the cognitive and arousal-based processes that link them risk leaving patients with persistent residual symptoms. The present study therefore examines the relationship between insomnia and depressive symptoms, with a specific focus on PSA and DBAS as potential mediators. Examining these variables may contribute to a more nuanced understanding of how insomnia and depression co-occur, and may inform future research aimed at identifying clinically relevant intervention targets.

On the basis of previous findings, it was hypothesised that**:**

- **H1:** Insomnia (x) has a positive effect (c) on depression (y)
- **H2:** PSA Scale (M1) mediates the relationship between insomnia (x) and depression (y)
- **H3:** DBAS (M2) mediates the relationship between insomnia (x) and depression (y)

Figure 1

Proposed Mediation Models for the Relationship Between Insomnia and Depression Implicated in the Development and Maintenance of Depression



Path c is the total effect of insomnia on depression without the influence of the potential mediator variable.

Path a1 is the effect of insomnia on the mediator variable PSA Scale and path b1 is the effect of PSA Scale on depression. Path a1*b1 is the indirect effect (including the mediator PSA Scale).

Path a2 is the effect of insomnia on the mediator variable DBAS and path b2 is the effect of DBAS on depression. Path a2*b2 is the indirect effect (with the mediator DBAS).

Methodology

Participants

Four hundred and sixty-nine dutch-speaking adults were recruited from 30th of November until 17th of December 2021. Criteria for inclusion were being of age 18 or above, proficient in Dutch and having an email and internet connection.

Materials

After signing informed consent, participants completed a single online survey hosted on Qualtrics. The survey opened with a short demographic block (age, gender, education level, living situation, and occupational status) and was followed by four self-report questionnaires of interest, measuring insomnia, depressive symptoms, pre-sleep arousal, and dysfunctional beliefs and attitudes about sleep. The four questionnaires were presented in a fixed order for all participants. While randomisation of questionnaire order would have been preferable to control for order effects, this was not implemented in the original data collection, which is acknowledged as a limitation in the Discussion. .

Insomnia Severity Index (ISI)

Insomnia was measured using the Insomnia Severity Index (ISI) developed by Morin (1993). The test includes 7 items designed to assess: (a) the seriousness of difficulties in falling asleep (initial), (b) challenges in maintaining sleep (middle), (c) problems with early morning awakening (terminal), (d) contentment with the existing pattern of sleep, (e) disruptions to daily activities, (f) perceptibility of impairment linked to the sleep issue, and (g) the extent of distress caused by the sleep complaint. Answers can be input on a 5-point Likert-scale ranging from 0 (Very satisfied) to 4 (Very dissatisfied). A sample item is: "How SATISFIED-DISSATISFIED are you with your CURRENT sleep pattern?". A total score is calculated from all items. Total scores range from 0–7 indicating no clinically significant insomnia, to 22–28 hinting Clinical insomnia (severe). The Insomnia Severity Index (ISI) demonstrates sufficient and stable internal reliability with a Cronbach's alpha between 0.76 at baseline and 0.78 at followup and serves as a dependable self-report tool for assessing perceived sleep challenges (Bastien et al., 2001). In this study a high level of internal consistency was found (7 items, α = .82).

Hospital Anxiety and Depression Scale (HADS-D)

Symptoms of depression were measured with the Depression subscale of the Hospital Anxiety and Depression Scale (HADS-D), developed by Zigmond and Snaith (1986). Although the full HADS comprises 14 items measuring both anxiety and depression, only the 7 depression items (HADS-D) were used in the present study, as the focus was on depressive symptoms. The anxiety subscale was therefore not analysed or reported. An example of one of the items is: "Lately I feel like everything is getting more difficult." Responses are given on a 4-point Likert scale ranging from 0 (not at all) to 3 (almost always). The sum of all items is the total score and the HADS-D total score ranges from 0 to 21, with a score between 0 and 7 indicating no clinically relevant depression, and a score between 11 and 21 as a threshold for suspected depression. The HADS-D has demonstrated effectiveness in evaluating the severity of symptoms and the presence of depression across somatic, psychiatric, and primary care patients, as well as in the general population with a Cronbach's alpha values that for the HADS-D ranged from .67 to .90 (average.82) (Bjelland et al., 2002). In this study a high level of internal consistency was found (14 items α = .88).

Pre-Sleep Arousal Scale (PSAS)

To measure pre-sleep arousal the Pre-sleep arousal scale (PSAS) developed by Nicassio (1985) was used. The scale is made of 16 items where participants have to give an input. An example item in the questionnaire is: "A jittery, nervous feeling in your body". Participants have to give an answer on such items on a 5-point Likert scale ranging from 1 (not at all) to 5 (extremely). A total score is calculated from the input on all items. The first 8 items measure somatic pre-sleep arousal with a sum score (PSAS-somatic), and the 8 items that follow measure cognitive pre-sleep arousal (PSAS-cognitive). The clinically relevant threshold for PSAS-somatic and PSAS-cognitive are of a value of ≥14 for the somatic items and ≥20 for the cognitive items. Cronbach's alpha of 0.87 for the cognitive scale and of 0.83 within the somatic scale were found (Gorgoni et al. 2021) In this study a high level of internal consistency was found within the two scales combined (16 items α = .89).

Dysfunctional Beliefs and Attitudes about Sleep Scale (DBAS)

A scale developed by Morin (1993) was used to quantify dysfunctional beliefs and attitudes about sleep (DBAS). The questionnaire is made of 28 items where participants have to fill in. An item from the questionnaire can be: "I am sometimes afraid of dying in my sleep". Participants are required for each statement, to indicate the level of agreement or disagreement on a visual analog scale. Each item is answered on a 100-mm line where respondents indicate with a sign the level of agreement with statements about sleep (0="strongly disagree"/ 100= "strongly agree"). Scores are created by recording the millimetres of distance from the start of the line to the response given. A final score is calculated with the average score of all items together, with greater values showing greater dysfunctional beliefs and attitudes. Some researchers are in favour of visual analogue scales and their sensitivity to the smallest differences, some have argued that certain items of the DBAS show low average and variance and they discussed it as evidence of a low sensitivity to individual differences. Cronbach alpha of 0.77 for clinical and 0.79 for research samples were found (Morin et al., 2007). In this study a high level of internal consistency was found (16 items $\alpha = .87$)

Procedure

The pool of participants was created by unifying two different samples of individuals. Participants for the "insomnia sample" were recruited through www.insomnie.nl, where they voluntarily signed up and consented to be contacted for research. Then, they received an email with a link to the survey on Qualtrics. For the "student sample," a convenience sample was collected by bachelor's students in 2021 using various communication channels, including email, WhatsApp, and Reddit.

The recruitment followed a chronological order. Participants first received an information brochure, followed by a link to the ethically approved questionnaire by the University of Amsterdam (CE number: 2021-COP-14104). The questionnaire, requiring approximately 45 minutes for completion, was not rewarded with research credits. Participants received a reward in the form of a PDF containing self-help sleep tactics for their involvement.

Analysis plan

Only participants who completed every item across all four questionnaires were included in the statistical analysis, ensuring that no values were missing. For each respondent, individual item responses were aggregated into total scores. The primary analysis utilised the total scores of every participant across all measures for the questionnaires of Insomnia Severity Index (ISI), Hospital Anxiety and Depression Scale (HADS-D) and Pre-sleep arousal scale (PSAS), whereas an average score was calculated for the Dysfunctional Beliefs and Attitudes about Sleep scale (DBAS). The two groups were initially recruited through different channels and were therefore expected to differ in their baseline rates of insomnia and depressive symptoms (the website group was self-selected for sleep complaints, whereas the student group was a convenience sample). However, because the present study was not designed to compare the two groups but rather to test within-person associations between insomnia, depression, PSA, and DBAS, group membership was not a relevant grouping variable for the planned mediation analyses. The two samples completed exactly the same set of questionnaires under the same online conditions, and pooling them therefore did not introduce procedural heterogeneity. Combining the two sources also increased statistical power and broadened the range of insomnia severity captured in the data, allowing for a more reliable estimation of the relationships among the variables of interest. As a result, the two groups were treated as a single,

unified sample. In the Hospital Anxiety and Depression Scale (HADS-D), items 1, 3, 5, 6, 8, 10, 11 and 13 are reverse-scored, meaning that the values of that item were reversed and only then they could be included in the statistical analysis.

The sample was tested for outliers with the use of boxplots created in SPSS analysing the total and average score of the participants within each questionnaire. If any input from a participant was revealed outside the lower or upper quartile and beyond the 1.5 interquartile range, it was considered an outlier and the input of that participant was removed altogether from the sample (Field, 2017). Descriptive statistics were calculated for the variables of interest and the demographics after removing outliers. The presence of multicollinearity was also checked by means of zero-order correlation. Cronbach's alpha was calculated within SPSS in order to verify the internal reliability of each questionnaire (ISI, HADS-D, PSAS and DBAS).

The hypotheses being tested are that the pre-sleep arousal scale (PSAS) and dysfunctional beliefs and attitudes about sleep (DBAS) mediate the relationship between insomnia and depression. This was investigated with two independent mediation models, the first one with the pre-sleep arousal scale (PSAS) as a mediator (Figure 1: H2/a1*b1) and the second one instead with dysfunctional beliefs and attitudes about sleep (DBAS) as a mediator (Figure 1: H3/a2*b2).

The assumptions necessary to run a mediation analysis were checked. The dependent, independent, and mediator variables should be continuous. These variables of interest should also show a linear relationship, and this was verified by means of a scatter plot. This has been inspected with the Regression Standardised residual on Regression Standardised Predicted Value Plot (Field, 2017).

Mediation analysis was performed in SPSS using the PROCESS tool developed by Hayes in 2012. PROCESS is an add-on of SPSS, a tool that facilitates the modelling and computation of mediation (Hayes, 2012). The two mediation analyses were tested with the same criterion. It was evaluated if the 95% confidence interval was significant for the indirect effect, namely the path a1*b1 and path a2*b2 for the first and second mediation analysis respectively (Figure 1). Partial mediation was established if there was a significant connection not only between the mediator and the dependent variable but also a direct significant link between the independent and dependent variables.

Results

Descriptive Statistics

100 participants were removed from the sample because they did not respond to all items necessary for the study. Within Table 1 the mean and the standard deviation of both main variables and mediators are reported.

Table 1

Correlations, means and standard deviations of model variables

	Mean	Sd	1.	2.	3.	4.
1. HADS	27.13	7.15	.88[a]			
2. ISI	15.12	5.96	.41***	.82[a]		
3. PSAS	35.58	12.20	.68***	.50***	.89[a]	
4. DBAS	4.67	1.79	.45***	.59***	.48***	.87[a]

Note: **p*<.05, ***p*<.01, ****p*<.001, [a] Cronbach's alpha

Demographic characteristics of included participants are exposed in Table 2 (Means and standard deviations of demographics for age) and Table 3 (Frequencies of Demographics).

Table 2

Means and standard deviations of age

	Mean	SD	Min	Max
Age	47.39	16.79	18	80

Table 3

Frequencies of Demographics

Demographic Characteristics	n (*N* = 362)	%
Insomnia		
Without	86	23.8
Less than a month	3	.8
1-3 months	6	1.7
Longer	276	73.8
Sex		
Male	104	28.7
Female	258	71.3
Educational level		
None	3	.8
Primary education	3	.8
MAVO/VMBO or comparable	27	7.5
MBO or comparable	66	18.2
HAVO/VWO or comparable	55	15.2
HBO or comparable	129	35.6
Scientific education	79	21.8
Residence		
I live with my partner (married or unmarried)	214	59.1
I live without a partner but with others (housemates, parents, children)	66	18.2
I live alone	78	21.5
Otherwise	4	1.1
Job		
Yes, a paid job	218	60.2
No	106	29.3
Yes, own company	38	10.5
Symptoms duration (insomnia)		
Less than a month	3	.8
1-3 months	6	1.7
Longer than 3 months (namely)	267	73.8

According to the boxplots seven outliers were identified and removed from the sample. This resulted in a total sample size of 362 participants that met all requirements.

Assumption Checks

The assumptions of linearity were met and homoscedasticity was violated only for PSAS. This problem was solved by running the mediation analysis including PSAS with heteroscedasticity robust standard errors. The process analysis was run with a Huber-White standard error. The presence of multicollinearity was also checked by means of zero-order correlation that can be verified in Table 1. The zero-order correlation of the variables was not greater than .80 or .90 so there are no signs of a violation of the assumption of multicollinearity (Field, 2017).

Finally, the Shapiro-Wilk test was used to assess whether the residuals of the regression models were approximately normally distributed. The Shapiro-Wilk test revealed that the normality assumption was met for the

model predicting PSAS from ISI, $W(362) = 1.00$, $p = .604$, but was violated for the models predicting HADS from PSAS, $W(362) = .99$, $p = .035$, and HADS from DBAS, $W(362) = .99$, $p = .004$. However, according to the central limit theorem, since the dataset was larger than 30 respondents, the analysis was robust for not normally distributed residuals (Field, 2017).

Hypothesis testing

To test H1, H2, and H3, two parallel mediation analyses were conducted in SPSS using the PROCESS macro (Hayes, 2012), with insomnia (ISI) as the independent variable, depression (HADS-D) as the dependent variable, and PSA and DBAS as mediators in separate models. Each analysis was structured to evaluate (a) the total effect of insomnia on depression, (b) the path from insomnia to the mediator, (c) the path from the mediator to depression after accounting for insomnia, (d) the residual direct effect of insomnia on depression after including the mediator, and (e) the indirect (mediated) effect with 95% bootstrapped confidence intervals based on 5,000 resamples. Full statistics for both models are reported in Table 4 and visualised in Figure 2.

Hypotheses 1 and 2: Pre-Sleep Arousal as a Mediator

H1 stated that insomnia would have a positive effect on depression, and H2 stated that pre-sleep arousal (PSA) would mediate this relationship. To test these hypotheses, the first mediation model was estimated with Huber–White (heteroscedasticity-consistent) standard errors, given that the homoscedasticity assumption was violated for PSAS. First, insomnia significantly predicted PSA, indicating that higher insomnia severity was associated with higher pre-sleep arousal, $R^2 = .25$, $F(1, 360) = 128.15$, $p < .001$. Second, when both insomnia and PSA were entered as predictors of depression, the overall model was significant, $R^2 = .46$, $F(2, 359) = 145.15$, $p < .001$. Within this model, insomnia remained a significant predictor of depression, $B = .11$, $t(359) = 1.98$, $p = .048$, indicating a significant direct effect after accounting for PSA. The indirect effect of insomnia on depression through PSA was significant, indirect effect = .38, 95% bootstrapped CI [.29, .47]. Because both the direct effect and the indirect effect were significant, PSA was identified as a partial — rather than full — mediator: a meaningful portion of the association between insomnia and depression is statistically accounted for by elevated pre-sleep arousal, but a residual direct association remains that PSA does not capture. Therefore, H1 and H2 were both supported.

Hypothesis 3: Dysfunctional Beliefs and Attitudes about Sleep as a Mediator

H3 stated that DBAS would mediate the relationship between insomnia and depression. The second mediation model was estimated with conventional (non-robust) standard errors, since the homoscedasticity assumption was met for DBAS. First, insomnia significantly predicted DBAS, $R^2 = .35$, $F(1, 360) = 195.69$, $p < .001$. Second, when both insomnia and DBAS were entered as predictors of depression, the overall model was significant, $R^2 = .48$, $F(2, 359) = 53.73$, $p < .001$. Within this model, insomnia remained a significant predictor of depression, $B = .26$, $t(359) = 3.81$, $p < .001$, indicating a significant direct effect after accounting for DBAS. The indirect effect of insomnia on depression through DBAS was also significant, indirect effect = .22, 95% bootstrapped CI [.13, .32]. As with PSA, the simultaneous significance of the direct effect and the indirect effect indicates partial mediation: dysfunctional sleep-related beliefs explain part, but not all, of the association between insomnia and depression. H3 was therefore supported.

Table 4

Hierarchical regression outputs for the mediation analysis

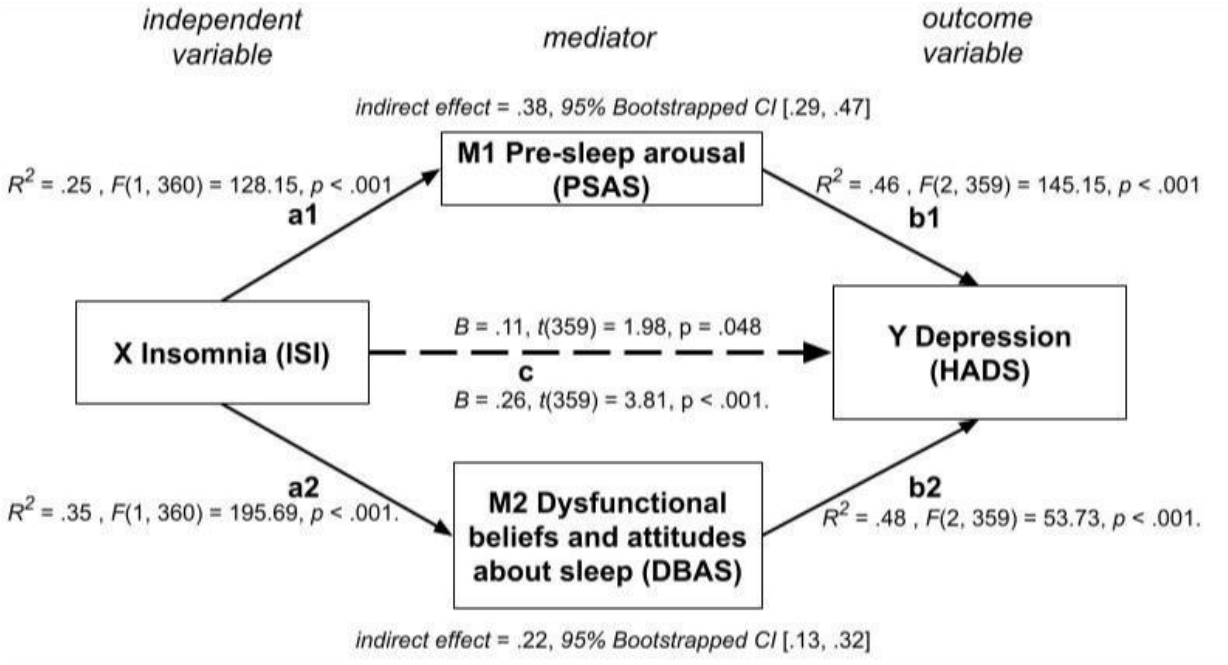
	PSAS	**Depression** (total effect)	**Depression**	**DBAS**	**Depression** (total effect)	**Depression**
	B^h	B^h	B^h	B	B	B
Constant	23.07	19.75	11.24	1.97	19.75	17.25
ISI	1.03***	.49***	.11*	.18***	.49***	.26***
PSA			.37***			
DBA						1.27***
Indirect effect 95% bootstrap		.38 [.29, .47]			.22 [.13, .32]	
N	362	362	362	362	362	362
Total R^2	.25***	.17***	.46***	.35***	.17***	.23***
F	128.15	71.43	145.15	195.69	71.40	53.73

Note: *p<.05, **p<.01, ***p <.001 normal standard errors are used in the analyses except where there is a ^{h} Huber–White (heteroscedasticity consistent) standard errors are used

Figure 2 visualises both mediation models side by side. The figure shows that insomnia is positively associated with each mediator (paths a_1 and a_2), each mediator is positively associated with depression after controlling for insomnia (paths b_1 and b_2), and a smaller but still significant direct path from insomnia to depression remains in both models (path c′). Together, the two figures and Table 4 indicate that PSA and DBAS each carry a meaningful share of the insomnia–depression association, with PSA accounting for a somewhat larger indirect effect than DBAS in this sample.

Figure 2

Results of the Two Mediation Analyses



Discussion

This study examined the association between insomnia and depressive symptoms in a Dutch adult sample, and tested whether pre-sleep arousal (PSA) and dysfunctional beliefs and attitudes about sleep (DBAS) statistically account for that association. Across two parallel mediation models, all three preregistered hypotheses were supported: insomnia severity was positively associated with depressive symptoms (H1), and both PSA (H2) and DBAS (H3) partially mediated this association. The two mediators carried meaningful but non-overlapping shares of the relationship, with the indirect effect through PSA (.38, 95% CI [.29, .47]) being somewhat larger than that through DBAS (.22, 95% CI [.13, .32]). In both models a residual direct effect of insomnia on depression remained, indicating that PSA and DBAS each explain part — but not all — of the link between disturbed sleep and depressive symptomatology.

Insomnia and Depressive Symptoms (H1)

Building on prior work showing that chronic insomnia is a robust predictor of depressive symptomatology (Neckelmann et al., 2007; Bei et al., 2018; Meaklim et al., 2023), it was predicted that ISI scores would be positively associated with HADS-D scores. The data were consistent with this prediction: insomnia severity was significantly associated with depressive symptoms in both mediation models, with a small-to-moderate residual direct effect remaining after the inclusion of each cognitive mediator. Substantively, this replicates the well-documented co-occurrence of these conditions in non-clinical adult samples and supports the view that insomnia is not merely a downstream symptom of depression but a clinically meaningful correlate that deserves attention in its own right (Blom et al., 2015).

Pre-Sleep Arousal as a Mediator (H2)

Drawing on cognitive–behavioural models of insomnia (Nicassio et al., 1985; Palagini et al., 2017) and on findings linking pre-sleep arousal to depressive and suicidal symptoms (Karlson et al., 2010; Olgiati & Serretti, 2022; Meaklim et al., 2023), it was predicted that PSA would mediate the insomnia–depression association. The findings were consistent with this prediction: insomnia severity was strongly associated with PSA, PSA was associated with HADS-D scores after adjusting for insomnia, and the bootstrapped indirect effect was significant. The pattern is best characterised as partial rather than full mediation, meaning that elevated nocturnal cognitive and somatic arousal statistically accounts for a sizeable portion of why people with worse insomnia also report more depressive symptoms, but does not fully explain the relationship. This is consistent with theoretical accounts in which hyperarousal is one — but not the only — transdiagnostic process linking sleep disturbance to mood (Kalmbach et al., 2023).

Dysfunctional Beliefs and Attitudes about Sleep as a Mediator (H3)

Given prior evidence that dysfunctional sleep-related cognitions sustain insomnia (Morin et al., 1993, 2007) and predict depressive symptomatology (Park et al., 2012; Meaklim et al., 2023), and that change in DBAS mediates change in psychological distress during cognitive behavioural therapy for insomnia (Parsons et al., 2021; Faaland et al., 2023), it was predicted that DBAS would mediate the insomnia–depression association. This prediction was also supported, with a significant indirect effect and a smaller, but still significant, residual direct effect. The smaller indirect effect for DBAS relative to PSA suggests that, in this sample, beliefs about sleep account for somewhat less of the insomnia–depression association than nocturnal arousal does. One possible reading is that PSA reflects an immediate state-level mechanism (in-the-moment hyperarousal at bedtime), whereas DBAS reflects a more stable trait-like cognitive pattern; both contribute, but they may operate on different time scales. Importantly, both mediators are explicit targets of CBT-I, which strengthens the clinical relevance of the present findings.

Strengths

Beyond replicating the insomnia–depression association, the present study has several strengths. First, by testing PSA and DBAS as parallel mediators in the same sample, it allows a direct comparison of the relative contribution of each mechanism, rather than evaluating them in isolation as much of the prior literature has done. Second, the sample combined a self-selected insomnia-prone group with a more general convenience sample, which broadened the range of insomnia severity captured by the ISI and increased the statistical power available to detect indirect effects. Third, the use of bootstrapped confidence intervals via the PROCESS macro provides a more robust test of mediation than older causal-steps approaches and reduces reliance on assumptions of normally distributed indirect effects. Together, these features add credibility to the conclusion that PSA and DBAS each carry a meaningful share of the insomnia–depression relationship.

Limitations and Future Research

Several limitations should be noted. First, the PSAS and HADS were analysed only at the total-score level, even though both have meaningful subscales (somatic vs. cognitive PSA; HADS-A vs. HADS-D). This precludes any conclusion about which subcomponent drives the observed indirect effects. Distinguishing PSAS-somatic

from PSAS-cognitive matters because cognitive arousal in particular has been singled out as the active ingredient in mindfulness-based and CBT-I interventions for insomnia and depression (Kalmbach et al., 2023; Olgiati & Serretti, 2022), and may therefore be the more clinically actionable target. Likewise, examining HADS-A alongside HADS-D would have been informative because insomnia is a transdiagnostic risk factor for both anxiety and depression, and the two are highly comorbid in clinical samples (Bjelland et al., 2002; Meaklim et al., 2023); the present design cannot say whether PSA and DBAS preferentially mediate associations with depressive symptoms specifically or with general affective distress. Future work should re-run the present mediation models at the subscale level to clarify these distinctions.

Second, the sample limits generalisability. Participants in the website group actively volunteered because they recognised sleep complaints in themselves, while the convenience-recruited group is unlikely to be representative of the general population. As a result, it is unclear whether the observed indirect effects would replicate either in a strictly clinical sample of patients meeting diagnostic criteria for insomnia disorder and major depression, or in a fully unselected community sample with mostly subclinical symptoms. Future studies should test the present model in both directions, ideally using diagnostic interviews rather than self-report cut-offs.

Third, the study relied entirely on self-report measures collected at a single time point in a fixed (non-randomised) order, which introduces several related limitations: shared method variance can inflate associations between constructs measured with the same response format; participants' answers may be coloured by mood on the day of testing; and a fixed item order leaves open the possibility of order effects on later questionnaires. Future research should add objective indicators — for example, polysomnography or actigraphy to quantify sleep, and EEG-based markers of nocturnal arousal — alongside self-report, randomise the order of the questionnaires within the survey platform, and ideally collect repeated measurements over time to assess within-person stability of the mediating processes.

Finally, the design is cross-sectional and therefore correlational. Although the analytic framework is one of mediation, the data cannot establish that insomnia causes depression via PSA or DBAS, nor that intervening on PSA or DBAS would weaken the insomnia–depression link in a clinical setting. Longitudinal designs that track change in insomnia, the candidate mediators, and depressive symptoms across multiple waves — and ideally randomised intervention studies that experimentally manipulate PSA or DBAS — are needed to evaluate the directional and causal claims that the present mediation models can only suggest.

Clinical Implications and Conclusion

With these caveats in mind, the results support the clinical relevance of explicitly addressing pre-sleep arousal and dysfunctional sleep-related beliefs when treating patients who present with comorbid insomnia and depression. Both mediators are already targeted by CBT-I (Parsons et al., 2021; Faaland et al., 2023), and the present findings strengthen the rationale for integrating these components into combined treatments rather than treating insomnia and depression as separate problems. The direct comparison of PSA and DBAS as parallel mediators, the broad range of insomnia severity in the sample, and the bootstrapped estimation of indirect effects together place these conclusions on firmer footing than studies that examine either mediator in isolation. Continued investment in longitudinal and intervention research is needed to confirm the directionality of these relationships and to identify which patients benefit most from arousal-focused versus cognition-focused components of treatment.

Conflict of Interests

There is no conflict of interests.

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The Green Void: Post-Soviet Institutional Fragility and the Framing of Environmental Expertise in Armenia

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Abstract

This paper examines the controversy surrounding the Amulsar gold mine in Armenia to explore how environmental issues are framed in a context marked by institutional fragility and contested expertise. Using qualitative frame analysis of 94 media and civil society texts, as well as five semi-structured interviews, the study investigates how different actors - state officials, corporate representatives, activists, and civil society organisations (CSOs) - construct competing narratives around environmental risk, legitimacy, and development. The findings reveal that while government and corporate actors frame Amulsar as a symbol of national progress and economic necessity, activists highlight environmental harm, procedural injustice, and elite collusion. Both sides selectively invoke international expertise, exposing a broader "expertise void" in post-Soviet Armenia, where domestic epistemic authority is weak and foreign assessments are politicised. The study contributes to environmental governance and post-Soviet transition literature by demonstrating how knowledge itself becomes a strategic tool in democratic struggles over environmental legitimacy.

Keywords

Evnvironmental Governance, post-Soviet Transition, Contested Expertise, Expertise Void, Institutional Fragility

Introduction

After Vremya stopped broadcasting on Soviet Central Television, the baton for the truth was not passed but dropped to be fought over. More than three decades after the collapse of the USSR, the struggle to build credible institutions and restore public trust continues to shape the political landscapes of its former states. Particularly, the scramble to dominate discourse is visible within issues cutting across the politics of knowledge, legitimacy, and state authority. With environmental governance, questions of sustainability are deeply entangled within these dimensions, opening the ground to the contestation of the green agenda, its relevance and feasibility.

In particular, the question of environmental expertise becomes critical in contexts where scientific authority is weak, trust in institutions is low, and external actors play outsized roles in policymaking. In such settings, environmental governance becomes inseparable from the question of knowledge: who gets to define risks, whose expertise counts, and what political agendas does knowledge serves? While global environmental discourse increasingly revolves around issues of sustainability and green transitions, post-Soviet states, such as Armenia,

continue to grapple with the institutional, epistemic, and political legacies of a collapsed technocratic order (Hellman, 1998). Environmental expertise in such contexts is not simply lacking—it is fractured, contested, and often externally sourced. This structural condition, which this thesis terms an "expertise void," renders environmental discourse a battleground over development, legitimacy and authority.

Environment and sustainability have emerged as dominant topics in global political discourse, sparking immense academic interest in studying how environmental discourse is shaped in different contexts. For instance, climate change denial is a major topic in environmental discourse analysis, such as examining how government actors circumvent the issue or contest the scientific expertise surrounding it (Boecher et al., 2022). Social media has also been the subject of numerous studies, which have shown that environmental knowledge on specific issues is shaped through interactions among activists, think tanks, and NGOs on various environmental issues (Kim et al., 2024, 2024; Vu et al., 2021).

However, most studies on discourse analysis of environmental policy and movements primarily focus on countries with already developed institutional contexts for environmental policy (Leipold et al., 2019). Some analyses focus on countries with less developed environmental agendas, yet mostly among grassroots movements or the youth specifically (Tomohardjo et al., 2023). Alternatively, such studies focus on the coproduction of environmental knowledge between different stakeholders, which overlooks the inherently political aspect of environmental framing and the role of government coordination (Zarei et al., 2020). Thus, environmental knowledge production and discourse are still quite understudied in settings where domestic environmental institutions are underdeveloped or largely dominated by foreign organization's.

To do so, this paper suggests the case of Armenia and its post-Soviet institutional legacy. Relevant literature on environmental discourse will be presented, outlining the theoretical concepts applicable to the analysis of environmental expertise and environmental governance in post-Soviet institutional contexts. This theoretical background will be applied to the case of the Amulsar gold mine project in Armenia, as well as the discourse surrounding the environmental controversy related to it. The example of Armenia provides an additional variable of national security: a factor which, paired with the need for economic development, often overshadows environmental concerns, proving to be an interesting case for public policy and environmental studies (Barbieri & Aleksanyan, 2024).

The Amulsar gold mine project, located near the spa town of Jermuk in southern Armenia, has become one of the country's most prominent and continuous environmental controversies. The project is operated by Lydian Armenia, a subsidiary of the formerly UK-based Lydian International, which obtained a license to develop the site in the late 2000s (Lydian Armenia, n.d.). The mine was designed as a large-scale open-pit gold extraction operation utilizing cyanide heap leaching technology, with estimated reserves exceeding 2.5 million ounces of gold (ibid).

From the outset, the project raised concerns among environmentalists, local communities, and experts due to its proximity to Lake Sevan (Armenia's primary freshwater reserve), the Vorotan-Arpa water tunnel, and the Jermuk mineral springs, which are crucial to both the region's ecology and economy. Critics have also raised concerns over biodiversity loss, seismic risk, and the potential for cyanide contamination, particularly given Armenia's limited institutional capacity to monitor large-scale mining (COE, 2020).

By 2016, Lydian had begun construction, with backing from international institutions like the European Bank for Reconstruction and Development (EBRD) and the International Finance Corporation (IFC), both of which later distanced themselves from the project amid growing controversy (Bankwatch, 2019). Meanwhile, local resistance began to escalate. Protests emerged in nearby villages such as Gndevaz and Jermuk, where residents organized demonstrations and launched lawsuits against the environmental impact assessment (EIA), arguing that it failed to account for significant risks (CEE Bankwatch Network, 2017).

Despite the growing unrest, the Armenian government, under Republican Party leadership at the time, maintained its support for the project. Activists and critics claimed that high-level political ties shielded Lydian, and that regulatory bodies lacked the independence and expertise to evaluate the project's risks properly (OpenDemocracy, 2019). This environment of institutional distrust and opaque decision-making laid the groundwork for what many viewed as a symbol of elite-corporate collusion in post-Soviet Armenia.

Through mass protests, which started through social media campaigns, the 2018 Velvet Revolution brought the opposition leader Nikol Pashinyan to power (Witman et al., 2018). Since 2018, environmental movements have experienced a surge in Yerevan and rural parts of Armenia, driven by the promised reforms and democratization of the country, showcasing firsthand that popular movements can create change. The Amulsar gold mine project was controversial from its inception, as its land acquisition and approval were marred by numerous corruption scandals associated with the former government (Lesikhina, 2024). The anti-corruption campaign advocated by the new government sparked hope that the project would be halted.

Therefore, the case of Amulsar not only represents an avenue to explore environmental expertise in the context of institutional fragility but also how democratic discourse and aspirations shape the framing of the country's environmental agenda. This paper investigates the discursive and epistemic dimensions of this conflict. Specifically, it examines how different actors frame the environmental issues surrounding the Amulsar mine and how these framings reflect and reproduce the void of environmental expertise in Armenia. The objective of this research is to contribute to a deeper understanding of how environmental knowledge is politicized and legitimized in fragile post-Soviet contexts. This is particularly relevant in light of increasing global attention to green transitions, extractive industries, and the role of knowledge in democratic decision-making. Post-Soviet states are not exempt from global developments, and the obstacles to effective environmental governance in such contexts are also crucial to identify. These include epistemic obstacles, as the framings of environmental issues are central to public involvement and government action.

Hence, the central research question guiding this study is: *How do different actors surrounding the Amulsar mine controversy frame the environmental risks of the project, and how does this relate to the expertise void in post-Soviet Armenia?* Through a combination of frame analysis of newspaper and activist discourse, as well as qualitative interviews with key stakeholders, the research explores the landscape of environmental argumentation and epistemic authority in Armenia's most prominent environmental dispute to date. In doing so, it aims to contribute to academic debates on framing, environmental governance, and post-Soviet transitions while also offering insight into the political stakes of knowledge production in contested democratic settings.

This study advances Hajer's notion of the "institutional void" by introducing the concept of an "expertise void": a dual condition in which institutional fragility and epistemic dependency converge, rendering expertise both structurally absent and discursively contested. By theorizing expertise voids as both structural legacies of

post-Soviet collapse and discursive resources strategically mobilized by actors, the paper connects Armenia's case to broader debates on knowledge politics in transitional democracies and semi-peripheral states.

1.1 Literature Review: Framing Analysis and Environmental Governance

Framing analysis offers a means to comprehend how environmental issues are constructed and contested by various actors. Specifically, collective action frames consist of diagnostic, prognostic, and motivational components (Benford & Snow, 2000: 615). These elements help actors define problems, suggest solutions, and mobilize support. The government is positioned as a key actor in environmental governance, responsible for regulation, enforcement, and coordinating diverse stakeholders (Agrawal et al., 2022). In the context of environmental governance, framing plays a central role in shaping public perception and political discourse around environmental harm and sustainability (Feindt & Oels, 2005: 162–163).

To enhance the theoretical depth concerning social movements and interest groups, this analysis incorporates the social-psychological framework of the Value-Belief-Norm (VBN) theory of movement support (Stern et al., 1999: 81). VBN posits that public support for a social movement, a critical resource for overcoming powerful actors, flows from a conjunction of values, beliefs, and personal norms (idem: 83). Specifically, pro-movement actions are activated when individuals accept a movement's basic values (e.g., altruism), believe these valued objects are threatened (referred to as *Awareness of Consequences*, AC), and believe that action can alleviate the threat (*Ascription of Responsibility*, AR) (ibid). This process creates a personal norm for action that results in a predisposition to provide support. The type of support ultimately provided - whether it is low-commitment active citizenship actions (such as joining or funding groups**),** policy support/acceptance, or highly committed activism - depends on the individual's specific capabilities and constraints (ibid). This framework is highly congruent with social movement literature, as the VBN components parallel core framing tasks: diagnostic framing (defining the problem) aligns with the AC belief; prognostic framing (suggesting solutions) aligns with the AR belief; and motivational framing (impelling action) aligns with the resulting *Personal Norm*. Crucially, the opposition identified in the Amulsar case - Economic Necessity versus Environmental Risks - reflects a struggle between Self-Enhancement (egoistic) values and Self-Transcendent (altruistic) values, which VBN theory identifies as central drivers of environmental conflict

In the context of social movements and their adjacent actors, Hajer introduces the notion of "*discourse coalitions*"; groups of actors who share a particular set of storylines in the discourse (Hajer, 1997: 65). In environmental conflicts, such coalitions compete not only over policy, but also over meaning itself. Frame analysis has been applied to environmental disputes globally, such as mining resistance in Chile, environmental justice movements in South Africa, and resource struggles in Southeast Asia (Urkidi, 2010: 136; McDonald, 2003: 23; Forsyth, 2003: 89). These studies show that environmental conflicts are both material and discursive, involving struggles over how problems are defined and who is authorized to define them.

Thus, expertise is often mobilized strategically in such conflicts. Rather than resolving disagreement, it becomes a political resource. Boswell distinguishes between the instrumental use of expertise that genuinely informs policy and the symbolic use of expertise aimed at legitimizing decisions (Boswell, 2009). In the Amulsar case, Lydian Armenia appeals to international consultancy assessments to claim scientific legitimacy, while opponents challenge the neutrality of these experts, suggesting they are biased by financial or geopolitical interests.

The use of scientific legitimacy is vital for the Armenian case, as the general condition of Armenian politics since its independence has been one of lacking legitimacy and public trust (Giragosian, 2009). Legitimacy, in this case, is multidimensional, encompassing democratic legitimacy (the extent to which decisions are made through inclusive and participatory processes), legal legitimacy (compliance with rules and procedures), and sociological legitimacy (the degree to which institutions and decisions are perceived as appropriate, fair, and trustworthy by affected publics) (Bernstein, 2004). These dimensions are deeply interrelated: a process may be legally sound yet lack democratic participation or public trust, thereby undermining its broader legitimacy.

The lack of perceived legitimacy in Armenian politics can be attributed to several factors, one of which is the country's post-Soviet development. Rather than cultivating robust local expertise, states often rely on international consultants and Western science. This creates tensions around authenticity, autonomy, and trust. The absence of domestic epistemic institutions leads to what this thesis terms an "expertise void": not simply a lack of technical knowledge but the absence of credible institutions to adjudicate between competing truth claims. In Armenia, actors routinely invoke foreign expertise (e.g., ELARD) while simultaneously questioning its legitimacy. Similar dynamics are observed in Ukraine and Russia, where environmental governance is shaped by donor agendas and transnational NGO networks, often leading to fragmented and contested policymaking (Pavlenko & Kraemer, 2017, p. 201; Henry, 2010, p. 74).

Literature situates the Amulsar mine controversy at the intersection of framing, knowledge politics, and post-Soviet governance. It draws on a range of interdisciplinary literature to explore how environmental expertise is mobilised, challenged, and contested in fragile institutional contexts. By doing so, it contributes to ongoing debates about the role of knowledge in environmental governance and the challenges of building legitimacy in post-Soviet states.

1.2 Theoretical: Post-Soviet Armenia and Its "Expertise Void"

The context of this paper bases itself upon the post-Soviet reality of Armenia, its transition to a nation-state, and the fragile state of its institutions. There is a vast literature on such transitions, and the academic debate encompasses valuable concepts for further analysis of environmental expertise within the Armenian government.

During Glasnost, Armenia had one of the earliest environmental movements in the USSR, centred on the Nayiri chemical factory and the Metsamor nuclear plant (Ishkanian et al., 2013). These movements, however, were later overshadowed by the Karabakh movement, which sparked both events of Armenian independence and the war with Azerbaijan for the disputed region. Since then, environmental sustainability has not been a primary agenda item in Armenian politics. The period after independence resulted in the country following the unfortunate pattern of other post-Soviet states in developing fragile democracies (Hellman, 1998).

This pattern can be grasped by using Hellman's concept of a *partial reform syndrome*, which encapsulates Armenia's sociopolitical development in the 1990s. Partial reform syndrome refers to incomplete or uneven implementation of economic reforms leading to market distortions that generate concentrated gains for a narrow group of early winners or elites (Hellman, 1998: 204). As in the case of Armenia, Hellman argues that these elites consolidate their power by manipulating institutions, resisting transparency, and limiting institutional development (ibid). The post-Soviet legacy has also developed the dominance of informal institutions such as cliques and elite affiliations, while the external (primarily Western) influence on the post-Soviet countries has undoubtedly been

controversial domestically (Gel'man, 2003: 97). The legacies of central governance and rapid liberalisation have undermined the development of responsive and accountable institutions (ibid). This suggests that the development of these institutions simply did not have enough time and historical context to develop organically, instead being rushed after the fall of the USSR. In environmental governance, this results in vague or inconsistently enforced regulations, as well as low levels of public trust. All these factors suggest the fragility of the institutional landscape of the country as different institutions evolve at various speeds, creating an overall environment of instability and unpredictability (Hu et al., 2025: 2)

At the same time, Armenia's domestic institutions became increasingly reliant on external actors for their development and expertise. This reliance has sparked hostility towards some demographics and even opposition members in the country. For instance, the former chief of national security called the OpenDemocracy foundation a threat to the country, hinting that there are *"foreign-funded political organizations in Armenia*" which promote their own liberal values (Cricchio, 2019).

Tlostanova's concept of the *coloniality of knowledge*, which describes the delegitimization of post-Soviet social sciences by Western institutions, provides a valuable analytical tool for studying such dependency or hostility towards "*foreign*" knowledge (Tlostanova, 2015: 39–40). Not only did most of the country's experts leave the country after the collapse of the USSR, as the number of scientists in the country decreased five times to only 3000 during this period, but the remaining scientific community was left with a discredited Soviet education, most notably in the fields of politics and international relations (Gzoyan et al., 2023: 6–7).

Since then, Armenian society has been largely dependent on its scientific diaspora, which has also essentially meant using foreign expertise in its policymaking through bilateral scientific agreements with Western institutions (ibid). While reliance on diasporic scientific knowledge is a structural necessity, it can often clash with the hostility towards foreign expertise, creating situational trust in the diaspora as a source of scientific authority. Similarly, in its social policy, the Armenian government often uses European countries as examples to justify their implementation, as can be seen in the case of a failed ban on public smoking or the comparison of public littering policies of Armenia and Estonia by PM Pashinyan himself on his social media pages (Pashinyan, 2025).

The absence of domestic epistemic institutions leads to what this thesis terms an "*expertise void*": not simply a lack of technical knowledge but the absence of credible institutions to adjudicate between competing truth claims. In Armenia, actors routinely invoke foreign expertise (e.g., ELARD) while simultaneously questioning its legitimacy. Similar dynamics are observed in Russia, where environmental governance is shaped by donor agendas and transnational NGO networks, often leading to fragmented and contested policymaking (Henry, 2010: 74).

Having discerned the institutional reality of Armenia as it emerged after the collapse of the Soviet Union, this paper will examine environmental discourse in the country through the lens of post-Soviet developments and the domestic institutional void in ecological and sustainability expertise. Similar patterns are evident in other parts of the post-Soviet space. Studies of mining in Georgia and Russia highlight how weak institutions, low civic trust, and politicised science lead to unresolved environmental conflict and widespread public scepticism (Ivkovic, 2025; Newell & Henry, 2016).

Environmental expertise in this paper refers to the natural scientific aspects of environmental degradation and its impact, as well as the knowledge of social and economic factors that affect the environment and relevant

stakeholders (Sörlin, 2013: 14– 15). This conceptualisation of environmental expertise enables a broader examination of the case study, uncovering not only the framing of pure ecological threats associated with the project but also its social, economic, and political implications, which are pivotal in the Armenian landscape.

More specifically, in the Armenian context, the co-production of knowledge is marked by asymmetries of power and a lingering dependency on foreign expertise, which many actors either leverage or critique in their framings of the Amulsar conflict. Thus, investigating how actors frame the environmental risks, responsibilities, and stakes of the Amulsar mine also reveals deeper dynamics about how expertise is produced, contested, and legitimised in a state grappling with the legacies of Soviet technocracy and the uncertainties of democratic transition. This relational approach not only explains what is being framed but also why certain frames prevail or fail within Armenia's evolving environmental discourse.

Literature situates the Amulsar mine controversy at the intersection of framing, knowledge politics, and post-Soviet governance. It draws on a range of interdisciplinary literature to explore how environmental expertise is mobilised, challenged, and contested in fragile institutional contexts. By doing so, it contributes to ongoing debates about the role of knowledge in environmental governance and the challenges of building legitimacy in post-Soviet states.

1.3 The Case of Amulsar

By the time of the 2018 Velvet Revolution, which brought a wave of anti-corruption sentiment and democratic optimism to Armenia, the Amulsar mine had already become emblematic of wider public frustration with state-corporate power and environmental disregard. Following the revolution, resistance intensified: roads to the mine were blockaded by activists and residents, effectively halting operations and marking a turning point in both the conflict and the broader politics of environmental governance in Armenia.

Nevertheless, the new leadership turned out to be more populist than reformist. After initially promising that the project would only be approved if all environmental issues were resolved, Prime Minister Nikol Pashinyan approved the project in 2019 despite inconclusive assessments (Carvalho, 2017). Lydian Armenia, the company seeking the approval to exploit the mine, was repeatedly criticized for not conducting adequate environmental impact assessments (EIA) for the project: the residents of the nearby city Jermuk were not included as stakeholders in the company's report, despite activists' claimed links with the natural spring reservoir and cyanide leaching technology for mining proposed by the company (ibid).

The government approval faced immediate backlash from both protesters and civil society organizations, which were joined by international organizations advising against the project. The protesters, who have been blocking the mine's entry since 2018, received charges from Lydian Armenia, while many faced unjustified arrest, highlighting the government's resistance to support them (Aleksanyan, 2020). Despite the limited success of the protests and domestic pressure, such as the EBRD's decision to cut ties with the project after Lydian filed for bankruptcy, the company does not face serious legislative threats to its plans for the gold mine (Lesikhina, 2024). Moreover, with the recent agreement, 12.5 per cent of the Lydian shares were transferred to the Armenian government, effectively siding the administration with the company (Armenpress, 2024)

The discourse on Amulsar has also been curated by European and US institutions, which have pushed for their own interests. The internal EU report revealed that the UK and US have pressured the Armenian government in a

two-year standoff between protesters, an international mining company, and the authorities (Rowley, 2020). This cross-border character can be explained by Lydian Armenia being a branch of Lydian International, a UK-based mining corporation headquartered in the US and Canada.

Therefore, it is reasonable to suspect that domestic environmental organizations in Armenia are either not strong enough to exert pressure on the government or that civil society itself does not consider environmental issues as paramount due to higher priorities, such as economic development and national security.

2. Research Question and Methodology

This paper aims to answer the following question:

> *How do different actors surrounding the Amulsar mine controversy frame the environmental risks of the project, and how does this relate to the expertise void in post-Soviet Armenia?*

The two components of this research question are analytically intertwined: the way environmental risks are framed by different actors in the Amulsar mine controversy both reflect and reproduce the underlying expertise void in post-Soviet Armenia. Framing is not merely a representational practice; it is a strategic means through which actors compete to define environmental problems, assign responsibility, and assert legitimacy (Entman, 1993; Benford & Snow, 2000). In contexts where institutional trust is low and scientific authority is fragmented, as is the case in many post-Soviet states, such framing becomes particularly consequential (Henry, 2010). The absence of a widely trusted and independent epistemic infrastructure in Armenia creates a discursive space for multiple, often conflicting, claims to expertise, including those from government bodies, international consultants (e.g., ELARD), corporate actors such as Lydian, grassroots activists, and transnational organizations.

This study adopts a *typical* case selection strategy, focusing on the Amulsar mine controversy in Armenia as a representative instance of how environmental discourse and expertise are contested in post-Soviet contexts (Seawright & Gerring, 2008). A typical case is not chosen for its extremity, deviance, or theoretical leverage alone but rather because it reflects the broader structural and discursive patterns that define the phenomenon under investigation. In this case, the Amulsar controversy illustrates the characteristic tensions between domestic institutional weakness, public distrust in environmental governance, and conflicting claims to expertise that are prevalent across post-Soviet and post-colonial societies (Henry, 2010; Jasanoff, 2004; Forsyth, 2003).

Armenia, like many post-Soviet states, has inherited fragmented environmental institutions, an unstable science-policy interface, and a heavy reliance on foreign expertise to validate environmental decision-making. The Amulsar mine has been the subject of intense domestic resistance, international involvement, and governmental ambivalence, all of which reflect common dynamics in states where liberal democratic institutions are evolving but remain contested (Rowe, 2013; Turnhout et al., 2020).

The Amulsar case stands out as an information-rich and analytically accessible example of the very conditions under which expertise, legitimacy, and environmental risk are co-constructed in post-Soviet societies. Hence, the case is well-suited for qualitative, discourse-oriented research that aims to deepen our understanding of broader epistemic and political processes.

The research question and its double focus on problem framing and the role of knowledge production in post-Soviet settings introduce several other relevant subquestions that are addressed implicitly throughout the paper:

How do the framings of scientific versus social and economic expertise differ in the discourse?

How is the relevance of environmental knowledge in Armenia traced to its national security and development objectives?

What role does international expertise play in the framing of environmental issues in Armenia?

How do different actors perceive the expertise void in Armenia, and what are their proposed solutions?

These questions will be analyzed in light of Armenia's post-Soviet context, as described above, and additional qualitative methods will be employed to situate the analysis within this context.

2.1 Framing Analysis of Online Articles

The study will use two qualitative analysis methods to answer these complex questions. Given the focus on meaning-making, actor perceptions, and contested knowledge, a qualitative approach is well-suited for unpacking the complexities of environmental governance and expertise in transitional settings (Forsyth 2003).

To investigate the framing of environmental issues and the discursive politics of expertise, this study relies on a purposive sample of public texts produced by a range of key actors engaged in the Amulsar controversy. A total of 93 publicly available articles published between May 2018 and May 2025 were collected and coded from six sources, each selected for its representativeness of a specific stakeholder position. All articles deemed relevant to the Amulsar topic were selected, meaning that the quantity from each source varies based on the available material. The summary of the data can be seen in the table below:

Table 1

Sources, Actor Groups, and Number of Articles

Source	Actor / Group Represented	Number of Articles
Lydian Armenia	Mining Company / Corporate Actor	18
Azatutyun Radiokayan	Government / Official Statements	21
Civil Society Institute	CSO	3
ArmEcoFront	Environmental Activists	5
EcoLur	Environmental Activists / CSO	30
Hetq Investigative Journalists	Independent Media	13
Total	6	94

Note. CSO = civil society organization; ArmEcoFront = Armenian Environmental Front

Each source was selected to represent a distinct discursive position within the controversy. Following media and discourse analysis standards, sources were selected not for balance or volume alone but for their salience in framing the conflict and reflecting actor strategies (Wodak, 2015).

Lydian Armenia was selected to represent the corporate framing of environmental risks, economic benefits, and scientific legitimacy. As the mine's developer, Lydian's statements, press releases, and technical justifications provide insight into the ways corporate actors deploy environmental expertise and frame opposition as irrational or uninformed.

Azatutyun (Radio Free Europe/Radio Liberty) serves as a proxy for government communication. While nominally independent, Azatutyun is widely used to report official government statements and policy updates and often publishes statements from ministries, prime ministers, or affiliated officials. It allows access to the government's public framing without requiring access to internal records.

EcoLur and Armenian Environmental Front (ArmEcoFront) were chosen for their longstanding and consistent opposition to the Amulsar project, representing grassroots and environmentalist perspectives. These actors are not only critical of corporate and governmental practices but also mobilize counter-expertise and transnational environmental discourses. Even though Ecolur is a more established CSO with proximity to protesters, ArmEcofront represents a more grassroots perspective on the issue.

Hetq, Armenia's premier investigative journalism outlet, was selected for its role as an intermediary. It represents a more independent, investigative discourse, often uncovering contradictions, financial links, or institutional weaknesses. Hetq bridges civil society and public accountability journalism.

The Civil Society Institute was recognized as a professionalized civil society actor, known for its legal and policy-oriented contributions to public discourse, particularly in areas such as human rights, environmental rights, and stakeholder participation. Though fewer in number, their articles offer high informational value on institutional reform and civic engagement.

Together, these sources enable a sturdy triangulation between corporate, state, civil society, activist, and journalistic framings, providing a multifaceted perspective on the controversy. This diversity also helps uncover how different types of legitimacy - legal, democratic, and sociological - are invoked or contested in the framing of environmental risk.

The coding process consisted of inductive coding and comprised a total of three rounds. The data set is available in the appendix along with the codebook, helping with the replicability of the study.

2.2 Semi-structured Interviews

Secondly, to enrich the analysis, the study employs six qualitative, semi-structured interviews with actors representing Amulsar protesters, the government, civil society, and Lydian Armenia. Beyond complementing the framing analysis with direct insights from those actors, the interviews enable the exploration of post-Soviet institutional fragility and reliance on external actors in Armenian environmental discourse. The interview guide can be found in the appendix.

Additionally, qualitative interviews allow for further clarification of the frames used by each actor. For instance, codes such as *international organizations are useless* were uncovered through the interview process,

whereas this sentiment was only briefly mentioned in officially published data. Similarly, the activist and CSO articles often mentioned phrases such as *Exploitation of Armenia* or *Armenia as a Pollution Haven;* however, the justification and framing of these aspects as important to the debate were possible to expand upon in a direct dialogue with the protesters. The nature of qualitative interviews allows for the exploration of more personal perspectives and opinions from the subject directly - a subjectivity that secondary sources do not possess. When dealing with an issue which is crucially social and affects people from the bottom up, having direct insights from active stakeholders is significant for the credibility of the findings.

The study conducted five hour-long interviews: one interview with an activist who is part of various environmental CSOs in Armenia (Interview 1), a grassroots student activist against the Amulsar projects (Interview 2), an independent geologist/mining expert (Interview 3), a representative of Lydian Armenia working in the sustainability department (Interview 4), and a former public servant in the ministry of the environment who currently works at the World Bank (Interview 5).

The participants underwent an informed consent procedure, being informed about the aim of the study. The interviews did not involve notable ethical concerns, such as distress. Given the possible exposure of the participants, such as their societal position, affiliations, and employment, the interviews were anonymized. Only information relevant to the study about the participants is described above. The data collected from the interviews was transcribed either manually or using software, in compliance with the General Data Protection Regulation (GDPR). Additionally, all data, including interview transcripts, were stored in compliance with regulations and deleted upon completion of the study.

2.3 Limitations and Quality Assessment

This study was designed to meet the qualitative standards of credibility, transferability, transparency, dependability, and reflexivity. Notwithstanding, it acknowledges the inherent constraints of time, data availability, and researcher bias.

Credibility was supported through the triangulation of sources, including actor-aligned media (Lydian, EcoLur, Azatutyun, etc.), interviews with relevant stakeholders, and the coding of discursive content across a diverse dataset. The use of framing analysis allowed for the identification of patterned meaning-making strategies across cases. However, it should be noted that the study was conducted across the span of two months. A prolonged engagement would have allowed for deeper triangulation. Furthermore, the number of interviews was fewer than hoped at the outset of the study. This was in significant part due to the difficulty in contacting relevant actors and issues of access. Particularly, government officials and Lydian representatives were difficult to reach within the slim time frame, resulting in only one representative from each side being interviewed and thus diluting the empirical basis for certain conclusions.

Additionally, using a proxy source for government representation was chosen due to the time constraints of the study. This, however, might introduce some bias and incomplete representation of the government's perspective, as opposed to analyzing full government speeches and announcements on the topic.

Transferability was strengthened by situating the Amulsar case within a broader theoretical framework of post-Soviet institutional fragility, epistemic politics, and environmental governance. Nonetheless, because the research focuses on a single case study, the findings are contextually grounded and not generalizable in a statistical

sense. Their relevance lies instead in their conceptual and theoretical resonance with similar governance contexts marked by weak institutions and contested expertise, namely, other post-Soviet contexts in the South Caucasus, such as Georgia and Azerbaijan.

Dependability was addressed through careful documentation of the analytical process, including a codebook, coding tree, and thematic synthesis. The use of ATLAS.ti ensured a structured approach to data management. Still, due to time constraints, inter-coder reliability testing was not conducted, and coding decisions, while reasoned, may reflect the partiality of the researcher's perspective. This issue can be amplified by the positionality of the main researcher, who comes from Armenia. This also concerns the interviews, as they both helped in recruiting participants and meant bigger bias in interpreting the results.

This leads to potential flaws in the confirmability of the findings, which were tried to be accounted for through reflexivity and transparency. The use of memos and peer review of the findings tried to compensate for the potential bias. The interview plan and questions were also designed according to qualitative research standards and peer reviewed to avoid researcher bias. Nevertheless, more systematic reflection on positionality and potential researcher bias could have strengthened the robustness of the findings.

Overall, while the study does not claim exhaustive empirical coverage, it offers a meaningful and analytically grounded contribution to the literature on environmental governance, expertise, and discourse in transitional contexts. It should be read as a theoretically informed exploration of framing dynamics rather than a definitive or comprehensive account of the Amulsar conflict.

3. Result: Framing of Amulsar

A total of 509 quotations were identified, and 65 different codes, leading to the identification of four core themes. These themes are systematically organised here based on the three central framing tasks identified in the literature: diagnostic, prognostic, and motivational.

Diagnostic Framing (Defining the Problem): This is addressed in Section 3.1: Economic Necessity and Environmental Risks, where discourse coalitions present competing definitions of the crisis. Lydian and the government frame the problem as Economic Necessity, appealing to materialist values. Activists frame the problem as Environmental Risks and corruption, appealing to altruistic values.

Prognostic Framing (Suggesting Solutions/Actions): This is explored in Section 3.2: Sovereignty and Extraction and further detailed in Section 3.4: Expertise Void and Institutional Fragility. Prognostic frames focus on the required actions, such as seeking legal protection from threats to future investment or advocating for government action to stop the project.

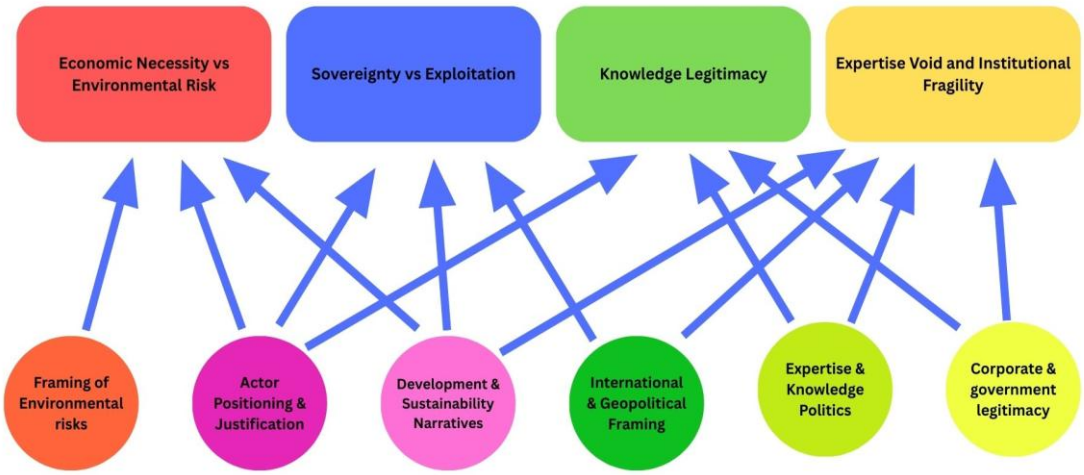
Motivational Framing (Call to Action/Justification): This is woven throughout the themes, particularly in Section 3.4, where opposing frames justify specific actions. For example, by framing resistance as democratic versus framing the blockade as illegal and potentially politically motivated.

A total of six code groups emerged through the inductive coding process of both the archival material and the interviews: *Framing of Environmental and Social Risk, Actor Positioning and Justification, Expertise and Knowledge Politics, Corporate and Government Legitimacy/Illegitimacy, International and Geopolitical*

Framings, and *Development and Sustainability Narratives*. These code groups further lead to the observation of four core themes summarized below.

Figure 1

The Transformation of Code Groups into Themes



The core finding of this analysis rests on clarifying the dual function of the 'expertise void' in the Amulsar dispute: a distinction necessary for moving beyond mere description. The expertise void is fundamentally a structural factor - the condition of institutional fragility in post-Soviet Armenia, characterised by the absence of credible domestic epistemic institutions and low public trust. This structural factor dictates that environmental knowledge, rather than being a neutral input, becomes a strategic tool in democratic struggles over legitimacy. Thus, the actual mobilisation of expertise (e.g., citing ELARD or international certification) functions as a rhetorical frame used by all actors to assert epistemic legitimacy. This analytical separation ensures the void is understood both as the underlying systemic issue and the strategic resource that actors exploit, reinforcing the finding that the struggle is over 'who gets to say what is true?'.

3.1 Economic Necessity and Environmental Risks: Framing Armenia's Political Agenda

The first theme identified in the coding process is intuitive. Each actor analyzed tried to present the issue by either repeatedly highlighting the environmental and social risks associated with the project or, conversely, downplaying them and focusing on the benefits of the mine. This theme emerged through two opposing diagnostic frames of the project, between the government and Lydian, on the one hand, and the CSOs and activists, on the other, essentially forming two opposing discourse coalitions. The *Economic Necessity and Environmental Risks* theme highlights the use of opposing aspects of the project, which the actors in the discourse attempt to emphasize.

This theme serves as an example of competing diagnostic and prognostic frames, with environmental harm versus economic necessity as competing definitions of the situation.

The most heavily used code group was the one related to the *framing of environmental and social risks*, as well as the *actor positioning and justification*. The Armenian government most often cited the economic benefits of the mine to portray the project in a positive light while also stating that the environmental concerns raised by activists and civil society organizations (CSOs) were exaggerated. These codes were identified 16 and 12 times, respectively. For instance, statements such as "*Predicting boosts to economic growth*" or "*this is a project, which will create a thousand jobs*" are both examples made by Nikol Pashinyan in his speeches in Jermuk, highlighting the heavy reliance on economic arguments when framing the project's risks as minimal (Azatutyun 17).

Similarly, Lydian's publications and public statements heavily emphasized the creation of jobs, economic growth, and the tax revenues associated with their project, which constituted their most frequently used argument for the mine (12). This frame used by both the government and the private company is not unique to Armenia or this case. Focusing on the economic downsides or benefits of environmental policy is a crucial framing device that can either discourage or promote it among the public (Bertolotti & Catellani, 2021). The mining industry itself uses economic frames when facing grassroots environmental activists, as was seen in the cases of India and the Philippines (Borde & Rasch, 2018). Hence, the use of economic frames when diagnosing the issue is not a new concept and is thus expected in the analysis.

This frame appeals directly to materialist values centred on economic well-being and personal and national security. Given Armenia's post-Soviet context, which prioritises economic growth and stability over environmental concerns, these materialist values hold high salience. Consequently, these economic arguments were treated as 'fairly apparent' and did not necessitate heavy mobilisation of complex scientific or international expertise. The diagnostic frame here is evidently accepted by many stakeholders, allowing corporate actors to focus on financial justifications rather than contested technical evidence.

On the other hand, both grassroots activists and civil society organizations (CSOs) focus on the environmental risks associated with the project. The most frequently cited argument against the mine is the risk of water contamination, which was mentioned 19 times. Risks of biodiversity loss, radiation risks, public health, and the social risks of community displacement, as well as those faced by Jermuk resort workers, were frequently highlighted by these actors. What is interesting is that, in official publications, the argument that the project's environmental risks are unmanageable or unavoidable was only used twice, both instances being made by the Civil Society Institute. In contrast, both the government and Lydian argued that the environmental risks of water contamination, radiation, and biodiversity loss were heavily exaggerated, citing this point 11 and 5 times, respectively.

The environmental risks frame, employed by activists and CSOs, required the heavy mobilisation of expertise (such as citing risks of water contamination, biodiversity loss, and public health threats). This is because environmental protection often appeals to altruistic values, which, while crucial, may be perceived as a lower priority when compared to economic or national security concerns in the current Armenian context. Furthermore, the central diagnostic belief in this frame is technically ambiguous (e.g., whether contamination risks are unavoidable). In the absence of credible domestic epistemic institutions (the 'expertise void'), both sides required

international expertise to validate their specific beliefs about these complex technical risks, thereby asserting epistemic legitimacy.

The independent expert interviewed for this research mentioned this as one of the key shortcomings of the whole discourse. As they phrased it:

"The mining industry a priori does harm to the environment. The activists should decide whether they are opposed to the mine wholly, which is a valid case to be made. But they choose to focus on specific technical aspects of the project, which can be simply disproven, even by me" (Interview 3).

Therefore, the activists and CSOs did not actively argue in their publications that their environmental concerns are insolvable, allowing the government and Lydian to frame the issue in a manner that suggests the risks of the project are already addressed and not significant.

By downplaying environmental concerns, the economic aspects of the Amulsar project gained a more significant role in the discussion. This gave Lydian and its supporters from the government an upper hand in framing the issue as primarily economic. Activists acknowledged the economic arguments for the mine to a certain extent. CSOs, such as EcoLur, addressed the economic aspect of Amulsar eight times, refuting the fiscal argument by highlighting the risks to the Jermouk tourism sector in case the mine operates, the costs of adequately containing the water contamination risks, and the financial burden on the government after the damage to the environment is done. This is also a common strategy, as activists acknowledge the short-term economic benefits of polluting industries but highlight the long-term environmental damage that will be a financial burden not only on the affected communities but also on the government. The case of Philippine-Palawan grassroots eco-activists also highlighted the prevalence of the "*eco-tourism argument*" in countering the economic frames used by mining companies (idem: 200-205).

The economic argument based on the tourism sector also appeared in the interview with the former government official and public servant at the Ministry of Environment. They mentioned that this would be the first mine in the region of Vayots Dzor, posing a significant threat to the community's tourism and resort-based economy (Interview 5). However, the activists and CSOs engaged far less with the main diagnostic frame used by the government and Lydian (economic benefits) compared to the latter two, which dismissed the environmental concerns raised by the project's opponents.

Even in interviews with environmental activists and protest organizers, the economic arguments for the mine were addressed only once, focusing again on Jermuk's healthcare resort workers and the decline in tourism. In contrast, during the interview with the Lydian Armenia representative, the economic argument was again presented and elaborated upon through phrases such as "*the mine opponents want Armenia to stagnate*," framing the issue as a matter of the country's economic development or stagnation.

The independent investigative magazine Hetq reflected these disparities in diagnostic and prognostic frames, presenting the activists' claims on biodiversity loss, water contamination, and social risks in higher numbers but mentioning economic arguments against the project only twice. Even though siding more with the activists, Hetq still reflected the major counter-frame of Lydian and the government, arguing that these ecological concerns were exaggerated.

This bipolar framing of the goals and obstacles for Armenia's development reflects not only the country's current prioritisation of economic growth but can also be traced back to the Soviet devaluation of environmental concerns. Despite being critical of the Soviet ecological legacy, security specialists in Armenia do not perceive environmental threats as major security threats, considering the frozen discussion about the Metsamor Nuclear plant built during the USSR, just 37 km away from Yerevan, in the middle of a seismic zone (Hopmann et al., 1997: 30). Hence, we can observe that 33 years after USSR, environmental issues made little progress in competing with the economic agenda for a spotlight in Armenian politics.

3.2 Sovereignty vs Extraction: Geopolitical Frames of Knowledge and Control

An inseparable aspect of the environmental agenda in Armenia is the question of national security and the country's position in geopolitical developments. Therefore, it was expected to see the actors in the discourse frame the Amulsar project as one of significance for the country's security and sovereignty.

Lydian and the Armenian government mentioned the threat to national security, namely the conflict over Nagorno-Karabakh with neighbouring Azerbaijan, 8 times throughout their publications and speeches about Amulsar. Additionally, the codes of national security threats and economic arguments for the project were fully co-occurring in all eight quotations analyzed.

This illustrates how the company and the government amplify the frame of economic development to the extent that it impacts national security and sovereignty. Because Armenia cannot financially "*afford*" another war, as Lydian's director phrased it in one of the publications, the government and civil society should prioritize the Amulsar mine for the sake of Armenia, he claimed (Lydian 7). Pashinyan shared similar concerns by stating that the protesters' blockade of the mine would have "*severe consequences for Armenia's economy and even national security*" (Azatutyun 16). Pashinyan has used a similar fear-mongering approach in his re-election campaigns.

It is, therefore, unsurprising that Lydian can frame the blockade and resistance to the project as an international conspiracy. This was elaborated in the interviews with the Lydians' representative, who suggested, despite being critical of conspiracy theories, that they do not rule out countries like Azerbaijan playing a role in the protests, which aimed to stagnate and ruin Armenia's reputation among foreign investors (Interview 4). The independent mining experts interviewed also shared similar suspicions, stating that the entire impasse on the project did not benefit the country's interests.

This explains another common code observed in Lydians' and the government's papers, which showed great concern for threats to future investments in the country if the project fails and investors lose their money. This was not only used as an argument by Lydian but also constituted a significant fear factor for the government, as Pashinyan claimed that halting the project could turn the country into a "*black hole on the world's economic map*" (Azatutyun 15).

This connects directly to the country's post-Soviet reality, which often necessitates the country reiterating its independence. The fear of domination after its seperation from the USSR meant that economic stability and sovereignty were usually at risk, especially after ethnic antagonisms with neighbours became more apparent (Hopmann et al., 1997: 23). This political insecurity is visible also in the government rhetoric after the war, with Pashinyan repeatedly emphasizing that "*Armenia needs an internationally recognised state through a new constitution to affirm Armenia's sovereignty*" as part of a "*Real Armenia' ideology*" (Barseghyan, 2025).

Therefore, both the government and Lydian framed the project's success as crucial for the country's sovereignty and safety against neighbouring threats. This also achieved the aim of portraying the opponents of the mine as either intentionally undermining Armenia's national interests or simply seeking to hinder Armenia's development. The latter was especially the case when Lydian referred to the members of the diaspora who spoke against the mine and supported activists as those who want Armenia to turn into a "*third-world country*" or those who see Armenia as simply a "*summerhouse*" with pretty nature (Interview 4).

From the activists' and CSOs' perspective, the geopolitical framing of Amulsar was not so much about economic development as it was about economic exploitation. The ArmEcoFront publications repeatedly hint at the global financial pressure on Armenia, which undermines its sovereignty. Motivational frames, such as "*not letting international banks trample the interests of the Armenian people*," imply an unequal geopolitical position between Armenia and Western financial interests (ArmEcoFront 1). This frame was expressed more clearly in the interviews, adding sentiments that *Armenia is seen as a pollution haven* because "*the government does not have the guts to regulate them*" or that the only difference between Amulsar and resource exploitation by Western companies in Africa is that Lydian is doing a "*subtler*" job in Armenia (Interview 1).

Additionally, activists portray the sovereignty of Armenia as being undermined by citing reports of foreign governments, such as the UK and the US, allegedly exerting pressure on Armenia to approve the project. This, along with repeated claims of "*corporate greed*" during the interviews, shows that the frame employed by the opponents of the mine is one of economic exploitation of Armenia, whose interests contradict those of the project.

The investigative Hetq reflected these activists' concerns that Armenia would become a pollution haven in its publications while briefly mentioning the geopolitical aspects of the project only once. This suggests that, despite both sides hinting at external powers influencing the course of the discussion, much of it remains unspoken in official settings and is elaborated upon more during interviews.

In the context of the conflict with Azerbaijan, activists and CSOs addressed concerns about national security only once, stating that the proximity of the mine to the border necessitates even greater scrutiny by the government. This argument was somewhat vague, and even during the interviews, the activists did not link the project to border security as closely as the government and Lydian, often mentioning that the conflict meant environmental and sustainability concerns were frequently overshadowed in Armenian politics. One of the activists went as far as to say that personally, they thought of the Amulsar issue much less after the 2020 war and, to a certain extent, understand the public negligence towards environmental concerns in Armenia right now.

"I have to admit when the war broke out, I forgot about Amulsar. I am not saying every member of our organisation did, but I personally could only think about our brothers on the frontline and the possibility of this happening again in the near future (Interview 1)

This sentiment further highlights the environmental agenda being at the margins of Armenian politics, as such issues become secondary in the face of immediate threats to one's security. A fact that both Lydian and the government exploit in their framing of the Amulsar project.

3.3 Actor Positioning Through Knowledge Legitimacy

In the case of the economic frame, expertise was not heavily employed, as the arguments for job creation and tax revenue were fairly apparent and were not significantly contested by activists and CSOs. Similarly, statements about international conspiracies or the global exploitation of peripheral countries by richer ones tend to reside more on kitchen counters than at the forefront of Armenian environmental discourse. However, where the topic concerned something more publicly contestable, such as environmental impact, all the stakeholders engaged in more nuanced frames by utilizing different sources of expertise.

Right away, we can see a clear link with the research question concerning the expertise void in Armenia, as all stakeholders actively used references to international expertise (71) in their prognostic and diagnostic frames, something this paper particularly focuses on. In comparison, reference to local expertise was observed in less than half the number of quotations (24). The visual summary of these findings is illustrated in Figure 5 below.

Figure 2

Reference to International Expertise and Reference to Local Expertise



The use of international expertise was mainly seen as a strategy for each actor to legitimize their claims on the environmental impact of the project. Lydian, in their publications, referred to international experts approving their project and procedures 12 times. The company conveyed sentiments that the EIA being processed by the government had already been approved by "*more authoritative Western organizations*" such as Wardell Armstrong (Azatutyun 13). An interesting connection is also made between Lydian's own research and international expertise, thus linking corporate knowledge with international standards to legitimize it. The co-occurrence of both codes in their publications was four times, while the company's positionality, operating through international standards, effectively reaffirms the linked instrumental and symbolic use of expertise.

In contrast, references to local expertise occurred only thrice, twice of which aimed to ridicule the activists' empirical claims about biodiversity loss resulting from mine construction. In general, remarks on activists' and CSOs' lack of knowledge and "*naiveté"* were a common strategy for Lydian, identified in 10 quotations. These were also made more explicit in interviews with Lydian Armenia's representative, which implicitly differentiated between the good type of experts (mostly foreign) and the "*tree-huggers*" (naïve environmentalists) (Interview 4). Paired with this attack on the knowledge behind environmental movements, questioning the intentions of the activists was also observed in both interviews and published articles of Lydian, suggesting that the activists were either paid off by rival mining companies or manipulated into action.

The government statements, although less direct, relied on external expertise to justify their approval of the mine (seven times) while not mentioning local expertise a single time. Pashinyan himself ridiculed some activist claims about water and radiation pollution from the mine (Azatutyun 14). Considering the established government position that environmental concerns are exaggerated, the epistemic framing lies in creating an image of activists and concerned local experts as either possessing inferior expertise or being led by malintent. The same theory about activists being paid off was observed in four different quotations from government speeches and announcements.

Interestingly, CSOs and eco-activists utilized international expertise in a similar strategic manner to Lydian, thereby increasing the perceived sociological and democratic legitimacy of their concerns. Together, they referred to international expertise a total of 36 times in this manner. They would include claims of support from international environmental scientists, citing international standards or conventions that support their cause. This demonstrates a significantly greater reliance on international expertise by the mine's opponents, who were also more inclined to cite local experts (16 times) who shared their concerns.

All these references were mainly used to argue that the EIA conducted by Lydian was inadequate (26), therefore constructing an attack on corporate expertise. A similar strategy of delegitimizing Lydian was employed by activists and CSOs, who stated that Lydian made misleading claims about the project, as well as placed a heavy emphasis on the use of corporate force for physical and other forms of suppression of protesters (12). The activists further attacked corporate expertise by claiming that the international experts Lydian cites for their EIA were already contractually bound to the company or that independent experts would arrive at the mining site in the corporation's vehicles.

The peculiarity of these findings is that both opposing groups employed similar epistemic strategies in their prognostic and diagnostic frames, yet completely disregarded similar claims that contradicted their aims. For instance, Lydian heavily relied on international expertise when justifying its operations; however, it also heavily criticized ELARD's third-party audit by discrediting its knowledge of the mining industry and disregarding its conclusions, as observed in the interviews. This attack was particularly interesting given that ELARD did have experience in mining. The protesters used the same argument against Lydian four times, again stating that the company has no experience in mining, as Amulsar is its first-ever project.

During the interviews, the activists also revealed that they mostly viewed the role of international organizations in sharing their expertise as futile for the Amulsar movement. This further reinforces the idea that references to such expertise served symbolic aims, as activists recognized the greater importance of local expertise in such regional projects.

A crucial analytical task is determining why some frames mobilize expertise heavily while others do not. The analysis reveals a strategic disparity in the deployment of epistemic resources: expertise is **not heavily employed** in the **Economic Necessity** frame (Section 3.1). This occurs because economic arguments focused on job creation and tax revenue appeal directly to fundamental, high-priority materialist values (i.e., economic well-being and security) prominent in the post-Soviet context, making these claims seem 'fairly apparent' and thus requiring less epistemic validation. Conversely, the Environmental Risks frame necessitates heavy reliance on expertise. This reliance stems from two VBN-related needs: (1) environmental protection appeals to potentially lower-priority altruistic values; and (2) the core belief underpinning this frame (Awareness of Consequences, AC) is technically contested (e.g., whether contamination risks are exaggerated or unavoidable). In the context of the Armenian 'expertise void,' international authority is therefore strategically mobilised by both sides to validate contested technical beliefs, determining whose 'truth matters' in the policy system.

3.4 Expertise Void and Institutional Fragility: Government, Institutions and Crisis of Knowledge

To fully address the second part of the research question, the perceptions and actions of actors regarding environmental expertise in Armenia should be examined.

Unsurprisingly, given the heavily criticized state of Armenian politics, the government's actions (or, in most cases, inaction) were heavily criticized by both Lydian and the opponents of the mine.

The first apparent diagnostic frame employed by the activists concerned government corruption playing a role in the approval of the mine, primarily but not only referring to pre-2018 administrations. This frame was observed 15 times throughout the activists' and CSOs' publications. The sentiment that Armenian politics has been corrupt since its independence is used by the opponents of the mine to discredit the mining permits granted to Lydian, suggesting that the decisions made by previous governments cannot serve as a basis for discussion. Facts regarding the lack of stakeholder engagement, such as the absence of public hearings for Jermuk residents to participate in decision-making when approving the mine, are highlighted in the articles, underscoring the intentional procedural flaws in the project's initial stages.

Activists and CSOs also argued for more concrete cases of corruption. The head of the investigating committee for Amulsar, Yuriy Ivanyan, who was appointed shortly after the 2018 revolution, is reportedly linked in publications to the former Minister of Environment, who signed the documents for the EIA of Lydian. During the interviews, the activists also discussed how each minister of the environment had a side business, which often had financial interests in mining (Interview 1). Additionally, the activists mentioned that mining permits were being handed out as "*favours*"; thus, the approval of the initial EIA is "*comical proof*" of the mine's safety (ibid).

The apparent frame identified from these sentiments was the association between the new government members dealing with the issue and the previous corrupt regime. Thus, the code was also used in the context of the government siding with Lydian and concealing important information in their assessments, thereby aiding their previously mentioned arguments regarding Lydian's use of misleading expertise. For instance, one of the activists, Anna Shahnazaryan, stated that some government officials sided with Lydian (a direct endorsement observed six times in all the data) to provide Pashinyan with inaccurate information about the issue.

It can be noted that the opponents of the mine take advantage of two interdependent frames in this context: the approval of the mine is a result of corrupt governance, and Amulsar is a test for the new government to show

that these times are in the past. The most used prognostic frame observed in activists' and CSOs' publications was the *call for government action* (8) to intervene and stop the project. This was also paired with the initial *optimism expressed by activists in 2018* (4), as stated in publications and acknowledged by activists during the interviews.

This logically led to another frame employed by the opponents of the mine, which portrayed the *Resistance to the Project as Democratic.* This frame was used by activists and CSOs 22 times, making it one of the most significant diagnostic frames in the data. Therefore, Amulsar is seen by the opponents of the mine not merely about correct expertise but " *a good test to show that democracy is still lacking in Armenia*" as "*a big portion of the people didn't want the mining project, and the government just didn't care about that whatsoever*" (Interview 2). Therefore, if the resistance to the project is the democratic will of the people, a call for government action is a sound strategy. Surprisingly, compared to other grassroots environmental movements, the publications and interviews call for people's mobilization only once and refrain from this motivational frame, which is central for movements like Extinction Rebellion (Ermakova, 2020: 72).

In comparison, Lydian had similar hopes for change after May 2018, as expressed during the interviews, that the previous corrupt regime also created obstacles by demanding a share of the mine's profits (Interviews 3 and 4). However, instead of focusing on democratic ideals, Lydian took a more critical approach, calling for the government to ensure their enterprise's legal protection. This was shown by the frequent co-occurrence of the *illegal blockade* code with criticisms of the government. The most common approach was to appeal to the legal aspects of the case, given the previous approvals that the activists had criticized. Hence, Lydian hinted at potential legal threats to the Armenian government. As the company's executive director, Hayk Aloyan put it: "*If we see that the matter is not solved through dialogue, we could appeal to other bodies and try to have our rights restored*" (Azatutyun 20). Thus, Lydian's framing of the issue in this context often referred to the legal legitimacy of the government.

The government publications showed awareness of these threats by using them to justify their inaction to the protesters. The former government official recalls "*letters of blackmail*" to the government, threatening to pursue international arbitration for the blockade (Interview 5). However, it is interesting to note that by the time the conflict with the protesters began, Lydian was still registered in an offshore UK territory, shortly after which it changed its registration to onshore UK, US, and Canada (ArmEcoFront, 2016). As offshore registered entities acquire jurisdiction for arbitration, the post-factum registration could constitute an abusive process and not be taken by the court. It is not clear if the government was aware of this, but it highlights the primary purpose of the threats as framing devices.

It can be observed that both Lydian and its opponents share grievances against the government. The code *government inaction* occurred eight times in Lydian's publications and five times in activists' and CSOs' publications, showing that the general perception is that the administration is not fulfilling its duties, whether legal or democratic. When asked about the role of the government, the former official responded with:

> *"My biggest grievance with my superiors was not making a decision. Playing the populist card. The government's and politicians' main mandate is to make decisions. Informed decisions, as hard as they can be. And the government just dragged on and kicked the can for way too long. It was either pissing off a major investor and undermining the investment climate or pissing off*

> *all of the environmental actors. A decision should have been made as soon as we had ELARD's conclusion." (Interview 5).*

The sentiment of disappointment is especially apparent after the promised judicial reforms in 2018 and Pashinyan's proclamations of Armenia as a "*bastion of democracy*", as one activist recalled (Interview 2). The growing pessimism about the government also translated into harsher evaluations during the interviews. Lydian representatives, activists, independent experts, and a former government official collectively referred to the government as incompetent a total of six times. Activists justified this claim by referencing its failures in environmental governance, with Lydian's representative suggesting that the government's "*inexperience and inability to understand the impacts of their decisions*" were to blame. At the same time, the independent mining expert went as far as to say that all the appointed ministers since 2018 are "*simply terrible experts in their given field if they even are experts*" (Interview 1, 2, 3, 4).

Especially the last sentiment expresses general frustration that, even after the revolution, Armenia seems to be lacking the expertise it needs to base its governance. The attacks by Lydian on domestic experts used by activists illustrate the superficial distrust of local knowledge. However, it goes much deeper than simply criticizing individual experts.

It has already been illustrated that all actors relied on international expertise to justify their positions, but it remains unclear how they motivated this decision. The code 'Armenia *Lacks Environmental Expertise'* was observed in the data 15 times, adding nuance to the understanding of the reasoning behind the dependency on international environmental expertise. In this regard, the interviews provided more insight than the primary data, as some actors elaborated on the issue of domestic knowledge production. Lydian representatives mentioned on several occasions that Armenia simply lacks "*serious large environmental audit companies inside the country*", also stating that since the Soviet Union, Armenia has never really developed any domestic research institutions (Interview 4).

Activists shared the perspective that Armenia's environmental expertise is underdeveloped. They mentioned that Amulsar is direct evidence of the incapacity of domestic expertise to produce a comprehensive overview of the project while also highlighting other environmental malpractices by the government, including deforestation and construction pollution in urban areas (Interview 2). The independent expert interview for this research even said that the government's preference for ELARD over local experts effectively "*dishonored local expertise*", mainly because no new data was provided for the audit and "*the same conclusions could be reached by the average Armenian expert, and not for a 1000 dollars per hour*" (Interview 3). They even stated that international expertise providers "*sell their authority first, rather than guarantee good conclusions*" (ibid). The coloniality of knowledge is evident here through the government's assumption that international expertise provides more credibility, as explicitly stated by Pashinyan (Azatutyun 13).

Even if grassroots movements and experts themselves can appreciate local expertise, its development in the country is routinely questioned. In the interviews, the activists expressed either general frustration about the future or glimpses of hope for the next generation. However, this hope is mostly based on optimism rather than concrete developments in the country. Environmental expertise would require a new generation of experts to emerge in Armenia, something which was obstructed by the shaky post-Soviet legacy of the country. As the former government official stated in the interview:

> *"Technical expertise has been in a void in Armenia after the collapse of the Soviet Union. Our economic structure underwent a complete transformation, with all factories closing down and national production coming to a halt. And education in science wasn't necessary anymore because the demand for jobs wasn't there, and because we were turning into a market economy where the highest demand was doing a major in business or economics." (Interview 5)*

Lydian's director also stated that many professions which require environmental expertise are simply lacking popularity among university students, who often seek education in finance or marketing to work at transnational corporations stationed in Armenia (Lydian 4). This point was reiterated by the former government official, who mentioned that they know "*maybe four competent biodiversity experts who have working English proficiency*" and that it is a "*very narrow pool of experts to operate with*" when justifying the government's choice of ELARD's audit (interview 5).

Lydian's comment suggests a form of brain drain within the country, where young professionals seek jobs not in domestic organizations or firms but in foreign ones. But then, what prognostic frames does the company use for the abovementioned issue?

Amidst the described crisis of knowledge in Armenia, Lydian places heavy emphasis on its role in contributing to the solution of this issue. The code *Lydian Promotes Environmental Expertise* appears 15 times in the data, serving as a recurring argument for the social approval of the mine. The company lists the "*homegrown*" experts in the field that it has produced for the country and industry. The Lydian representative in the interview also stated that the company plays a crucial role in environmental expertise, as most of the experts working in the field are employed by the mining industry (Interview 4). The discussion went even further, as they expressed a sentiment quite common in the framing of political issues in Armenia.

> *Environmental science only develops when it's funded and supported by the business and when it's needed by the business. It's a science, and any science should be funded by the economy anywhere in the world. I've seen no scientific breakthroughs anywhere in the world that have been funded by the government. That's how it works unless we're in the Soviet Union. (Interview 4)*

This belief in private sector expertise can be explained from two perspectives. One is the apparent preference of a company representative to cite the benefits of corporate knowledge production. However, this also illustrates another aspect of distrust in the Armenian government, as it is expressed to be mostly incompetent, highlighting the shaky shift into the market economy after the collapse of the USSR. Armenia's lingering partial reform syndrome and the inaction of the democratic government enable Lydian to frame the development of environmental expertise as inherently market-based, despite numerous scientific breakthroughs worldwide that are funded by the public sector.

In contrast, the former government official suggested - similarly to the activists - that this expertise void needs time to heal, focusing on the development of educational institutions and civil society.

> *I hope that in the next 10 years, as a result of the Sustainability and Environment course that we started at the American University of Armenia, we will have more and more talent emerging.*

> *Doing their master's somewhere abroad, but coming back and serving their country because we are definitely in a dire, dire need for this. (Interview 5)*

Conclusion

When a gold mine project near a spa town becomes the site of international lobbying, mass protests, and epistemic collapse, it is clear that more is at stake than environmental risk alone.

This paper explored how different actors - government, corporations, activists, and civil society - frame the environmental issues surrounding the mine and how these framings reflect an underlying expertise void.

The study found that actors mobilize environmental risk narratives strategically. Government and corporate stakeholders often framed Amulsar as a development opportunity supported by international expertise, while activists emphasized ecological harm, democratic exclusion, and the manipulation of knowledge. Despite their opposing views, both sides relied heavily on foreign assessments, revealing a shared dependence on external expertise in the absence of trusted domestic institutions. Perhaps when institutional voids cannot be managed internally, one can only fill them in with CEMEX cement.

This shared reliance underscores a broader theoretical insight: in contexts of institutional fragility, environmental knowledge becomes a site of political struggle rather than neutral arbitration. The *expertise void* described here reflects not just the absence of scientific authority, but a deeper crisis of epistemic legitimacy rooted in Armenia's post-Soviet transition.

The concept of an expertise void introduced here helps illuminate this gap, not as a simple lack of technical knowledge but as a structural condition in which legitimacy, institutional trust, and epistemic authority are weak or contested. This void is not neutral; it becomes a battleground where actors compete for narrative dominance and political leverage. As Bernstein (2004) and Boswell (2009) suggest, legitimacy and expertise are always relational, dependent on audience perceptions and political context. In Armenia, this relationship is shaped by the legacy of Soviet technocracy, partial reform, and contested sovereignty.

Future research could benefit from comparative case studies across other South Caucasus or Eastern European states to assess whether similar dynamics emerge under different conditions. It could also expand on the role of digital platforms and diaspora actors in shaping environmental discourse, particularly given Armenia's transnational political landscape. Finally, more sustained engagement with local scientific communities and primary data could deepen our understanding of how expertise is cultivated or suppressed.

Ultimately, this paper suggests that in contexts like Armenia, the politics of environmental governance cannot be separated from the crisis of institutional legitimacy, national security, and the geopolitics of knowledge. The fate of Amulsar is not just about one mine but about who gets to speak for the environment - and whose truth matters.

Conflict of Interests

There is no conflict of interest.

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Governing Roma Inclusion through Urban Space: Policy Discourse, Ethnic Difference, and the Case of La Cañada Real

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Abstract

Social inclusion has become a central objective of European, national, and regional policy frameworks addressing Roma marginalization. Yet inclusion policies increasingly operate through governance regimes that regulate ethnic difference rather than simply alleviating inequality. This article examines how Roma inclusion is discursively rendered intelligible across urban and diversity policy documents in the European Union, Spain, and the Community of Madrid, focusing on La Cañada Real Galiana as a paradigmatic site of spatial intervention. Drawing on critical discourse analysis and frame analysis, the study analyzes four key policy strategies adopted between 2017 and 2021 across multiple governance scales. The findings show that inclusion is articulated through a multi-scalar and spatialized governing logic combining administrative categorization, monitoring, behavioral normalization, infrastructural intervention, and cultural recognition. At the European and national levels, inclusion is primarily framed through indicators, participation frameworks, and policy coordination mechanisms that render inequalities measurable and governable. At the regional level, these logics become territorialized through urban restructuring, demographic segmentation, and housing intervention. Roma communities are constructed simultaneously as rights-bearing minorities and vulnerable populations requiring targeted governance, while informal settlements are framed as incompatible with legality, infrastructural order, and contemporary urban life, legitimizing relocation and planning control. At the same time, symbolic recognition and participatory commitments coexist with regulatory governance, producing persistent tensions between visibility, inclusion, and control. By centering policy discourse, the article argues that inclusion functions as a differentiated mode of governing ethnic difference through urban space and administrative legibility. In doing so, it contributes to debates on Roma governance, urban marginality, territorialized inclusion, and the ambivalent limits of recognition-based policy frameworks.

Keywords

Roma inclusion; ethnic governance; urban marginality; policy discourse; La Cañada Real

Introduction

Social inclusion has become a central policy objective across Europe, particularly in relation to historically marginalized ethnic minorities such as Roma communities. European Union policy frameworks, including the EU Roma Strategic Framework for Equality, Inclusion and Participation (European Commission, 2020), emphasize *integration* through improved access to housing, education, employment, and healthcare. However, scholars increasingly argue that inclusion policies are embedded within governance structures that may simultaneously reproduce forms of exclusion, surveillance, and normative regulation (Magazzini, 2020). This paradox raises critical questions about how institutional language constructs marginalized populations and shapes their socio-spatial conditions. This tension resonates with critiques of multicultural inclusion that emphasize how recognition-based frameworks may accommodate minority difference while leaving intact hierarchical relations of power and belonging (May, 2012; Modood, 2013).

The case of Roma communities in Spain illustrates these tensions particularly clearly. Despite longstanding national and regional inclusion strategies, Roma populations continue to experience structural inequalities, including residential segregation, limited access to public services, and stigmatization within urban environments (García-Ramírez et al., 2015; Ruiz-Rivas et al., 2023). One of the most emblematic examples is La Cañada Real Galiana, an informal settlement predominantly populated by Roma people (including both Spanish Gitano and Eastern European Roma) located on the outskirts of Madrid. Often framed as a symbol of urban marginality, La Cañada has been the focus of multiple policy interventions aimed at urban regeneration and social integration. Yet these interventions have generated ongoing controversy regarding forced evictions, infrastructural neglect, and the governance of informal housing settlements (Agüí, 2017; Gonick, 2015).

Policy discourse not only reflects governmental priorities but actively constructs social problems, target populations, and acceptable solutions (Fairclough, 2013; Wodak, 2009). In the context of Roma inclusion, institutional rhetoric frequently relies on categorization strategies that frame Roma communities as vulnerable populations requiring intervention while simultaneously positioning them as social risks or obstacles to urban development (McGarry, 2014; Sigona, 2005). These discursive practices may contribute to the reproduction of social exclusion by legitimizing forms of state control and normative expectations of integration.

This article examines how urban and diversity policy documents in the Community of Madrid, Spain, and the EU construct Roma inclusion and whether these discursive frameworks help structure exclusionary governance. Drawing on critical discourse analysis (Fairclough, 2004) and frame analysis (Goffman, 1974), the study analyzes four key policy strategies across European, national, and regional governance levels.

Particular attention is paid to how these policies represent Roma communities in relation to urban space, social participation, and state intervention.

The study is grounded in theoretical approaches that conceptualize governance as a form of governmentality operating through discourse, administrative rationalities, and the production of governable subjects (Foucault, 2010). Within urban contexts, biopolitical governance often manifests through planning policies, housing regulation, and welfare interventions that aim to manage marginalized populations while simultaneously reinforcing social hierarchies (Legg, 2005; Rutland, 2015). From this perspective, inclusion policies may function as regulatory mechanisms that shape subjectivities and urban spatial arrangements rather than simply promoting equality.

The intersection between biopolitics and policy discourse has been increasingly explored in research on ethnic minority governance. Scholars have demonstrated that inclusion strategies may rely on processes of "othering," in which marginalized groups are constructed as culturally distinct, socially deficient, or requiring assimilation into dominant societal norms (Okely, 1994; Wacquant, 2008). In the case of Roma communities, such processes are often embedded within urban policy frameworks that frame informal settlements as pathological spaces requiring modernization, relocation, or normalization (Marinaro, 2009; Yiftachel, 2002). These representations can have material consequences by legitimizing eviction policies, spatial segregation, and intensified administrative monitoring.

Existing research on Roma inclusion policies in Spain has primarily focused on socio-economic outcomes, housing programs, and institutional reforms (Fabeni, López, & Piemontese, 2014; Pastor Hernández, 2018; Laparra, 2007). While these studies provide important insights into policy implementation, less attention has been devoted to examining how institutional language actively shapes governance practices and constructs social inclusion. By focusing on discursive strategies within policy documents, this article addresses this gap and contributes to broader debates on the role of language in producing urban inequalities.

Methodologically, the article combines frame analysis (Goffman, 1974) with critical discourse analysis informed by the Discourse-Historical Approach (Reisigl, 2017; Khosravinik, 2010). This approach enables an examination of how referential, predicational, and argumentative strategies construct Roma communities as policy subjects while legitimizing particular forms of intervention. The analysis focuses on four key policy documents at European, national, and regional levels: the EU Roma Strategic Framework (2020), the Regional Pact for La Cañada Real Galiana (2018), the Plan for the Social Inclusion of the Roma Population of the Community of Madrid (2017–2021), and the National Strategy for Roma Equality, Inclusion and Participation (2021–2030). Together, these documents provide insight into how inclusion policies are articulated across multiple governance scales.

The findings demonstrate that inclusion discourse changes form across governance scales. At the European and national levels, policy frameworks emphasize diversity, social cohesion, participation, and cultural recognition while simultaneously constructing Roma communities through categories of vulnerability, measurable disadvantage, and targeted intervention. Inclusion is articulated through indicators, monitoring systems, and policy coordination mechanisms that render inequalities administratively legible and governable. At the regional level, particularly in the case of La Cañada Real Galiana, these logics become territorialized through discourses of legality, urban order, infrastructural compatibility, and spatial normalization. Together, these discursive strategies facilitate the production and management of urban marginality by reinforcing hierarchical distinctions between mainstream urban citizenship and territorially regulated minority populations.

The article argues that inclusion governance changes form across scales, moving from epistemic frameworks of legibility and coordination at the European level to territorially concentrated forms of intervention and infrastructural management at the regional level. It makes three interrelated contributions to scholarship on social inclusion and urban governance. First, it demonstrates that Roma inclusion policies operate through a *spatialized discursive logic*, in which administrative categorization, surveillance, and cultural recognition are articulated in relation to informal urban space. Second, by focusing on urban and diversity policy documents rather than program outcomes, the article shows how inclusion is constructed not merely as a social objective but as a mode of governing marginalized populations through the regulation of space, conduct, and legitimacy. Third, through the

case of La Cañada Real Galiana, the study advances an understanding of informal settlements not as exceptional policy problems but as *paradigmatic sites* where contemporary inclusion governance becomes visible in its most condensed form. In doing so, the article contributes to critical debates on how institutional language shapes urban marginality, citizenship, and belonging.

Theoretical Framework

2. Social inclusion, Roma governance, and discursive power

2.1 Social Inclusion and the governance of marginalized populations

Within European Union governance, inclusion policies are commonly framed as mechanisms to reduce poverty, improve access to services, and foster civic participation among marginalized populations (European Commission, 2017). However, critical scholarship increasingly highlights the ambivalent nature of inclusion frameworks, emphasizing that inclusion initiatives may simultaneously operate as tools of regulation and governance rather than solely mechanisms of empowerment (Magazzini, 2020; Tremlett, 2014).

Research on social inclusion demonstrates that policy frameworks frequently construct marginalized populations through institutional categories such as vulnerable groups, populations at risk, or beneficiaries of intervention. These classifications shape both public perceptions and policy implementation strategies by defining who qualifies for support and under what conditions inclusion is considered achievable (Sigona, 2005). While such categorizations often aim to facilitate targeted social assistance, they may also reinforce essentialist representations that portray marginalized groups as socially deficient or culturally incompatible with mainstream society (McGarry, 2014). At the same time, a definition of the Roma identity is difficult to find (Català-Oltra, 2021). The issue is that their identity mainly arises from a logically external categorization, understood from above by policy-makers and scholars.

While Roma communities constitute historically grounded and internally diverse populations with shared cultural and linguistic trajectories (Maltras, 2002; Stewart, 1997), defining Roma identity remains analytically complex and often reductive. In particular, the category Roma has also been shaped and standardized through policy frameworks, academic discourse, and governance practices (Sigona, 2011), which can obscure the heterogeneity and situated forms of self-identification across different Roma communities (Okely, 1983; Brooks, 2015).

The governance of Roma communities illustrates these tensions particularly clearly. Across Europe, Roma populations have been the focus of extensive inclusion strategies aimed at addressing housing segregation, unemployment, and educational inequalities. Yet scholars have documented how these strategies frequently reproduce hierarchical relationships between state institutions and Roma communities by framing inclusion as contingent upon behavioral adaptation, cultural assimilation, or spatial reorganization without participatory practices (Taba, 2021; Creţan et al., 2021). As a result, inclusion policies may reinforce structural inequalities by prioritizing regulatory intervention over community agency.

These dynamics are particularly evident in urban governance. Cities have become key arenas for the implementation of social policies, often through housing programs, urban regeneration initiatives, and spatial

planning frameworks (Koch, 2018). Urban policy interventions frequently target informal settlements inhabited by Roma communities, framing these spaces as sites of social disorder or infrastructural deficiency requiring modernization and normalization (Marinaro, 2009). Such representations may legitimize relocation programs, surveillance mechanisms, and intensified administrative monitoring, reinforcing patterns of spatial segregation rather than addressing their structural causes.

2.2 Urban marginality, spatial Governance, and Roma settlements

The relationship between urban planning and ethnic marginalization has been widely explored in critical urban studies. Scholars have demonstrated how spatial planning operates not only as a technical process of infrastructure development but also as a political mechanism that regulates access to urban resources and defines acceptable forms of habitation (Yiftachel, 2002; Harvey, 2005). In this context, marginalized settlements are often framed as pathological urban spaces that threaten social cohesion or economic development.

Roma settlements across Europe have frequently been subjected to such spatial governance strategies. Research has shown that relocation programs, housing normalization initiatives, and urban renewal projects may inadvertently reproduce segregation by relocating Roma communities to peripheral or poorly serviced neighborhoods (Fabeni, López, & Piemontese, 2014). Public policies like in Spain often rely on narratives of modernization and social integration that portray informal settlements as incompatible with contemporary urban standards.

In Spain, the governance of Roma settlements has been closely linked to urban regeneration policies implemented since the late twentieth century. Programs such as the *Plan de Remodelación de Barrios* and the creation of the *Instituto de Realojamiento e Integración Social* aimed to eliminate informal housing and relocate residents into formal housing structures. While these initiatives sought to improve living conditions, scholars have documented their role in reinforcing socio-spatial marginalization and limiting Roma agency in decision-making processes (Pastor Hernández, 2018; Nogués, Sáez 2010).

La Cañada Real Galiana originates from a historic livestock route (*vía pecuaria*), but its current configuration as an informal settlement dates back to the mid-twentieth century, when rural migrants began to self-construct housing along its trajectory on the outskirts of Madrid. Over subsequent decades, the area consolidated into a linear settlement of approximately 15 kilometers, characterized by significant social and spatial heterogeneity, including diverse housing typologies, economic activities, and populations.

This process intensified in the 1990s and 2000s, driven by rising housing costs, urban expansion, and the arrival of both migrant and marginalized populations, including Roma communities, who faced barriers to accessing formal housing markets. Despite its consolidation and long-term habitation, La Cañada remained outside formal planning frameworks due to its legal status as public land, creating a condition in which settlement was simultaneously tolerated and legally precarious.

This historical trajectory is crucial: rather than emerging as an inherently “illegal” space, La Cañada was progressively produced through processes of urban growth, informal housing practices, and institutional ambivalence, before being reframed through policy and media discourse as a social and urban “problem.”

2.3 Discursive governance, biopolitics, and the production of inclusion

Critical discourse studies provide important tools for analyzing how institutional language shapes social governance. According to critical discourse analysis, policy texts do not simply reflect social realities but actively construct them through linguistic strategies that define social actors, attribute responsibility, and legitimize policy interventions (Fairclough, 2013; Wodak, 2009). These discursive practices are particularly relevant in the governance of marginalized populations, where institutional narratives often frame inclusion as both a moral obligation and a regulatory process.

Foucauldian approaches to governmentality and biopolitics offer a useful framework for understanding how inclusion policies regulate populations through administrative knowledge, monitoring practices, and normative intervention. Biopolitics refers to forms of governance that regulate populations through administrative knowledge, statistical monitoring, and normative frameworks that define acceptable forms of life and citizenship (Foucault, 2010). Within urban contexts, biopolitical governance often operates through planning policies, welfare programs, and data collection systems that aim to manage social risk and promote population optimization (Legg, 2005; Rutland, 2015).

Scholars have increasingly applied biopolitical perspectives to the study of minority governance, demonstrating how inclusion policies may function as mechanisms of population management. Through processes of categorization, monitoring, and normalization, institutional frameworks shape marginalized populations as policy subjects while reinforcing hierarchical distinctions between dominant and subordinate social groups (Okely, 1994; Wacquant, 2008). These processes are often accompanied by practices of "othering," whereby minority populations are constructed as culturally distinct, socially problematic, or requiring assimilation into dominant societal norms.

In the case of Roma communities, discursive governance frequently relies on binary oppositions between integration and marginality, tradition and modernity, or dependency and productivity. These discursive constructions may legitimize interventionist policies by framing Roma communities as simultaneously vulnerable populations deserving support and social risks requiring regulation (Pap, 2015; Duquesnoy, 2013). Such representations have material consequences, influencing policy priorities, resource allocation, and urban planning decisions.

Despite growing scholarship on Roma inclusion policies, relatively limited research has examined how institutional language itself contributes to the reproduction of social and spatial inequalities simultaneously. Much existing research focuses on policy outcomes or program implementation, often overlooking the discursive mechanisms that render intelligible target populations and legitimize governance strategies. By analyzing policy discourse through a combined CDA (Fairclough, 2013) and frame analysis (Goffman, 1974) approach in the context of La Cañada Real, this article contributes to bridging this gap and provides insight into how inclusion policies shape urban marginality through linguistic and institutional practices.

Together, these theoretical perspectives highlight the need to critically examine social inclusion frameworks beyond their normative goals. Understanding how policy discourse constructs marginalized populations is essential for assessing the broader implications of inclusion strategies and identifying alternative governance approaches that prioritize participation, agency, and spatial justice.

Methodology/Research Design

3. Materials and methods

3.1 Research design

CDA provides analytical tools for examining how discourse reflects and reproduces power relations, particularly within institutional and policy contexts (Fairclough, 2013; Wodak, 2009). The study specifically draws on the Discourse-Historical Approach (DHA), which emphasizes the contextual and historically embedded nature of policy discourse while allowing for systematic analysis of linguistic strategies used to construct social actors and policy problems (Reisigl, 2017). Frame analysis (Goffman, 1974) complements CDA by identifying recurring interpretative patterns policies define social inclusion, vulnerability, and intervention strategies. This mixed qualitative approach is particularly suited to exploring how inclusion policies operate through discursive governance rather than solely through formal policy implementation.

3.2 Data selection and sources

The analysis focuses on four publicly available policy documents addressing Roma inclusion and urban governance in the EU, Spain, and the Community of Madrid. These documents were selected due to their relevance, institutional authority, and influence on regional and national inclusion strategies. Together, they represent multiple governance scales and provide insight into how inclusion policies are articulated across administrative levels.

The analyzed documents include:

1. **Regional Pact for La Cañada Real Galiana (2018)** – A regional policy agreement addressing urban restructuring and social intervention strategies in La Cañada Real Galiana.
2. **Plan for the Social Inclusion of the Roma Population of the Community of Madrid (2017–2021)** – A regional framework outlining inclusion strategies related to housing, employment, education, and social services.
3. **National Strategy for Roma Equality, Inclusion and Participation (2021–2030)** – A national policy aligned with the European Union Roma Strategic Framework, establishing long-term inclusion objectives.
4. **EU Roma Strategic Framework for Equality, Inclusion, and Participation (2020)** - the European Union's main supranational policy framework establishing common objectives, indicators, and governance priorities for addressing Roma equality

These documents were selected following criteria proposed by Reisigl (2017), such as representativeness, policy relevance, intertextuality, and institutional impact. This also includes the authoritative policy texts that articulate and circulate dominant inclusion frameworks. The selected dataset captures the discursive construction of Roma inclusion across urban planning, welfare governance, and diversity policy domains.

3.3 Analytical framework

The analytical framework focuses on identifying discursive strategies that construct Roma communities as policy subjects and define inclusion mechanisms. The analysis examines three interrelated dimensions of policy discourse: categorization, governance intervention, and normative inclusion narratives.

First, the study analyzes referential and predicational strategies used to describe Roma communities. Referential strategies involve the naming and categorization of social actors, while predicational strategies attribute characteristics, behaviors, or social conditions to these actors (Khosravinik, 2010). These strategies reveal how policies construct Roma communities as vulnerable populations, cultural minorities, or governance targets. Second, the analysis examines social action representations, focusing on how policy documents assign responsibility, agency, and regulatory intervention to different actors. This dimension investigates how inclusion policies frame Roma communities in relation to state governance mechanisms, including housing regulation, social assistance programs, and urban restructuring initiatives. Third, the study evaluates argumentative strategies within policy discourse, analyzing how policies justify inclusion interventions through causal reasoning, normative claims, and comparative narratives between Roma communities and majority populations. This approach allows for identifying how institutional rhetoric legitimizes governance strategies and constructs inclusion as a conditional or regulatory process.

Frame analysis (Goffman, 1974) was used to identify recurring interpretative patterns across the dataset. Ten analytical frames were developed based on existing literature on othering, biopolitics, and social inclusion governance. These frames were grouped into three thematic categories: (1) discursive othering and categorization, (2) governance and biopolitical regulation, and (3) inclusion and recognition narratives. The frames provided a structured coding scheme for identifying recurring discursive patterns across policy documents.

3.4 Data coding and analysis procedure

The documents were analyzed using qualitative data analysis software (ATLAS.ti) to facilitate systematic coding and thematic identification. The coding process followed an iterative and reflexive approach involving multiple analytical stages.

In the first stage, the documents were coded inductively to identify recurring linguistic patterns related to inclusion, exclusion, and governance intervention. This initial coding focused on identifying key terminology, rhetorical constructions, and representations of Roma communities within policy texts. Codes were later grouped into thematic categories corresponding to the analytical frames. This process involved identifying discursive patterns related to categorization strategies, surveillance mechanisms, spatial governance narratives, and symbolic recognition of Roma culture. Thematic clustering allowed for identifying dominant narratives and discursive tensions within policy frameworks. Lastly, the coded data were analyzed through CDA techniques, focusing on transitivity, modality, metaphor usage, and argumentative structures. These linguistic features were examined to assess how policy language constructs agency, authority, and normative expectations of inclusion.

3.5 Ethical considerations and limitations

The study relies exclusively on publicly available institutional policy documents and does not involve human participants. However, ethical considerations remain relevant due to the sensitivity of analyzing policies affecting

historically marginalized populations. The analysis aims to critically examine institutional discourse without reproducing stigmatizing representations or essentialist characterizations of Roma communities.

Several limitations should be acknowledged. First, the study focuses on policy discourse rather than policy implementation, meaning that it examines institutional representations rather than lived experiences of Roma communities. Second, the interpretative analysis may be influenced by the researcher's positionality and not being a Roma person. To attempt to address this limitation, the study employs systematic coding procedures and triangulation between analytical frameworks to enhance methodological transparency and reliability. As with all interpretative policy analysis, the study is shaped by the positionality of the researcher and the limits of analyzing institutional discourse without direct ethnographic engagement with affected communities. Despite these limitations, analyzing policy discourse provides valuable insight into the symbolic and institutional mechanisms that discursively construct social inclusion within urban policy frameworks.

Results

4. Findings

The analysis reveals that Roma inclusion policies across European, national, and regional governance levels are structured through layered discursive strategies that simultaneously promote social integration while reinforcing regulatory governance and spatial restructuring. Across the three policy documents, inclusion is articulated through institutional narratives that define Roma communities as both beneficiaries of social protection and targets of intervention. The findings identify four interconnected themes: (1) categorization and administrative construction of Roma policy subjects, (2) inclusion as regulatory governance through surveillance and normalization, (3) urban restructuring and the production of spatial marginality, and (4) the paradoxical coexistence of cultural recognition and governance control.

4.1 Administrative categorization and the construction of Roma policy subjects

Across the analyzed policy documents, Roma communities are systematically constructed through institutional categorization strategies that frame them as populations requiring targeted governance. These strategies rely heavily on administrative classifications such as "population at risk of social exclusion," "vulnerable group," or "population requiring social intervention." While such labels are presented as neutral and technical tools for allocating resources, they simultaneously produce Roma communities as administratively legible social subjects, defined primarily through their relationship to institutional intervention rather than through political agency or social heterogeneity (Sigona, 2005; McGarry, 2014).

The analysis demonstrates that referential strategies rely extensively on semantic generalization. Policy documents repeatedly describe Roma populations in terms of shared structural barriers—housing instability, educational marginalization, and limited labor market participation—yet these conditions are articulated in ways that homogenize Roma communities into a unified policy category. Diversity of class position, migratory trajectories, or forms of social organization is largely absent from the discourse. Similar homogenizing tendencies have been identified across European Roma governance frameworks, where complex social realities are simplified into standardized administrative populations to facilitate policy intervention (Tremlett, 2014; Creţan et al., 2021).

Predicational strategies further consolidate this homogenization by attributing characteristics associated with vulnerability, institutional distrust, and socio-economic dependency to Roma populations. In several instances, limited participation in education, employment, or welfare programs is framed less as the outcome of structural discrimination and more as a deficit of engagement with public institutions. Such framings subtly reorient responsibility, depicting Roma communities as simultaneously disadvantaged and responsible for activating their own inclusion. This logic reflects what Pap (2015) describes as ambivalent minority governance, in which marginalized populations are constructed as both objects of protection and subjects of correction.

A key mechanism enabling this ambivalence is the widespread use of indirect ethnic classification. Rather than explicitly naming Roma communities, policy texts frequently deploy broader categories such as "groups at risk of social exclusion" or "vulnerable minority populations." While this linguistic strategy appears to avoid ethnic labeling and reduce stigmatization, it often functions as a semantic proxy that implicitly references Roma communities while preserving institutional neutrality. As Hinger and Schweitzer (2020) note, such avoidance of explicit ethnic reference can reproduce forms of institutional invisibility while maintaining targeted intervention, allowing governance to operate without overtly racialized language.

This dynamic is particularly visible in formulations that simultaneously recognize difference and consolidate administrative control. For example, the National Strategy states that "*the Roma working population is a beneficiary of active employment policies and is considered a group of special attention*" (National Strategy, p. 29). Here, the designation of "special attention" signals both recognition and differentiation: Roma subjects are singled out as deserving policy focus, yet only insofar as they are positioned within a framework of deficit and intervention. The phrasing reinforces Roma populations as exceptional administrative cases rather than as participants in generalized labor and welfare systems.

This classification is not neutral but is typically justified within the document through references to disproportionately high levels of unemployment, social exclusion, and structural disadvantage among Roma populations. Such justifications anchor the category of special attention in measurable socio-economic indicators, while simultaneously consolidating Roma populations as a distinct administrative group requiring targeted intervention. In this way, structural inequalities are translated into policy categories that both legitimize intervention and stabilize Roma as exceptional policy subjects, rather than as participants in generalized labor and welfare systems.

Taken together, these categorization practices contribute to the reproduction of othering and racialization processes within institutional discourse. Although policy discourse frequently avoids explicit racial terminology, these processes nevertheless participate in broader forms of racialization that permanently differentiate Roma populations as governable subjects (Goldberg, 2002). By framing social exclusion as a persistent group condition rather than as the product of historically situated structural inequalities, policy texts naturalize vulnerability and stabilize it as an inherent characteristic of Roma communities. As Okely (1994) argues, such essentializing representations reinforce symbolic boundaries between minority groups and dominant social structures, normalizing hierarchical governance relationships. In this sense, administrative categorization does not merely describe Roma populations; it actively produces the policy subjects through whom subsequent practices of surveillance, normalization, and spatial regulation become both intelligible and legitimate. This dynamic is most clearly observable at the regional level, where administrative categorizations are directly translated into spatial

segmentation and intervention, while at the national level they operate through the construction of Roma populations as measurable and targetable groups.

4.2 Inclusion as regulatory governance: surveillance, monitoring, and behavioral normalization

A second central finding concerns the regulatory dimension embedded within inclusion policies. The analysis demonstrates that inclusion is repeatedly framed as contingent upon monitoring mechanisms, behavioral normalization, and participation in institutional oversight programs. Rather than operating solely as instruments of support, these measures position inclusion as a process to be managed, evaluated, and corrected. Such discursive patterns align with critical interpretations of social inclusion as a governance technology that regulates marginalized populations via administrative and normative frameworks (Magazzini, 2020; Wacquant, 2008).

Across the analyzed documents, surveillance practices are presented as essential components of inclusion strategies. References to demographic monitoring, educational performance tracking, and targeted intervention programs illustrate how institutional governance relies on data collection and statistical assessment to measure integration progress. However, important differences emerge across governance levels. At the national level, the *National Strategy for Roma Equality, Inclusion and Participation (2021–2030)* emphasizes the development of indicators, baseline data, and monitoring and evaluation systems, constructing Roma populations as measurable and comparable subjects of policy intervention. In contrast, at the regional level, the *Pacto Regional por la Cañada Real Galiana* operationalizes these logics more concretely through detailed territorial segmentation, population registries, and sector-based intervention frameworks, enabling the spatial management and direct regulation of residents. These differences reflect a scalar distribution of institutional power: while the national level defines the epistemic and administrative frameworks through which populations become legible, the regional level concentrates the capacity to implement, territorialize, and enforce these forms of surveillance. As scholars of governmentality and biopolitical governance have shown, such practices are central to contemporary modes of governance, in which populations are rendered legible through classificatory knowledge and administrative oversight (Foucault, 2010; Legg, 2005).

The emphasis on monitoring and measurable governance is particularly explicit within the *EU Roma Strategic Framework for Equality, Inclusion and Participation* (2020). The document calls for "a comprehensive monitoring and evaluation framework" and emphasizes the need for "improved collection and use of equality data" in order to "measure progress towards the targets" (European Commission, 2020, pp. 3–4). Similarly, it advocates the "systematic monitoring of the situation of Roma" through "reliable and comparable quantitative and qualitative data" (European Commission, 2020, p. 17). At the same time, the framework promotes the "meaningful participation of Roma" throughout policy processes (European Commission, 2020, p. 9). These formulations position inclusion as dependent upon continuous measurement, comparability, coordination, and administrative visibility, illustrating how the European level primarily governs through epistemic frameworks of legibility rather than through direct territorial intervention.

This logic is clearly articulated in the Regional Pact for La Cañada Real Galiana, which calls for the "*preparation of a census of the school-age population that makes it possible to know their needs, the inclusion of minors and out-of-school youth, and facilitates their future insertion into the labor market*" (Regional Pact, p. 36).

While framed as a supportive and future-oriented measure, the census functions as a biopolitical technology that renders Roma populations governable through data. By explicitly linking educational monitoring to future labor market insertion, the policy constructs childhood, schooling, and employability as sites of early normalization, where deviation from institutional trajectories becomes detectable and correctable.

Multiple policy sections describe inclusion as dependent upon access to and participation in mainstream systems of education, employment, and housing, framed in terms of reducing gaps with the general population and ensuring alignment with existing institutional norms. As the National Strategy states, "actions were focused in the areas of sectoral policies of Education, Employment, Housing and Healthcare to try to reduce the existing gaps with respect to the general population (p. 7)," while "mainstream policies will be implemented… to ensure access to and enjoyment of public services (p. 9)."

Responsibilization is made explicit in the Plan for the Social Inclusion of the Roma Population of the Community of Madrid, which states: "*Therefore, they must decide to get the most and best out of them, which requires an individual and collective action*" (Plan, p. 5). The modal construction ("must decide") frames inclusion as a moral obligation rooted in choice and effort, rather than as a shared social responsibility. Inclusion is thus recast as a matter of self-regulation, where Roma subjects are expected to align themselves with normative trajectories in order to merit inclusion. Such phrasing exemplifies neoliberal governance logics in which marginalized populations are held accountable for overcoming conditions that are structurally produced (Juhila, 2017).

Beyond monitoring and responsibilization, the analysis also identifies governance strategies embedded within housing and urban intervention policies that aim to improve living conditions and promote social inclusion. Relocation and urban restructuring initiatives are frequently framed as necessary measures to address structural inequalities and enhance access to adequate housing and services. These interventions are often justified through deontic modalities that emphasize institutional responsibility and commitment to ensuring equitable living standards. At the same time, policy frameworks incorporate explicit commitments to participation. At the European level, for instance, it is stated that "Roma people should be involved from the design to the implementation of measures" (European Commission, 2020, p. 6) , while the National Strategy highlights "the effective participation of the Roma population in the whole cycle of the relevant public policies" (National Strategy, p. 5). However, in practice, while policies aim to foster inclusion and improved living conditions, they also reflect broader planning frameworks through which spatial organization is coordinated and managed (Yiftachel, 2002).

Importantly, these regulatory mechanisms coexist with symbolic inclusion strategies. Policy frameworks frequently promote awareness campaigns, diversity initiatives, and anti-discrimination measures aimed at improving public perceptions of Roma communities. While such strategies articulate commitments to equality and recognition, they operate alongside surveillance, normalization, and spatial control. This coexistence reflects the tension identified by Fraser (2000) between recognition and redistribution, wherein symbolic inclusion does not necessarily disrupt the material and institutional conditions that sustain inequality. In this context, cultural recognition functions in parallel with governance practices that require behavioral and spatial adaptation to dominant norms. Taken together, the findings demonstrate that inclusion policies operate through a layered assemblage of surveillance and responsibilization.

The regulatory scope of inclusion discourse also extends to the governance of everyday conduct. Policy objectives such as the "promotion of healthy habits and lifestyles" (Plan for the Social Inclusion of the Roma Population of the Community of Madrid, p. 38) frame inclusion as a matter of personal behavior and self-regulation. The formulation presupposes a deficit in everyday practices and implicitly establishes normative standards of living against which Roma households are evaluated.

By mobilizing health as an object of intervention, policy discourse shifts attention toward behavioral and lifestyle factors, emphasizing individual responsibility in the promotion of well-being. At the same time, other policy domains—particularly housing and urban restructuring—explicitly address structural determinants of inequality, including access to formal housing, infrastructure, and essential services. For instance, the National Strategy highlights that "actions were focused in the areas of… Housing and Healthcare to try to reduce the existing gaps with respect to the general population" (National Strategy, p. 7) , framing inclusion as a matter of improving material conditions. However, these structural interventions coexist with health-related discourses that prioritize behavioral normalization and individual conduct. Inclusion is thus articulated through a dual logic: while housing policies seek to transform structural conditions, health frameworks often frame integration in terms of conformity to dominant lifestyle norms. Together, these dynamics reveal how inclusion operates through a combination of structural redistribution and responsibilization.

4.3 Urban restructuring and the discursive production of spatial marginality

The third major finding concerns the relationship between inclusion discourse and urban spatial governance. The analysis demonstrates that policy documents consistently construct informal Roma settlements, most notably La Cañada Real Galiana, as pathological urban spaces that stand in opposition to dominant imaginaries of modern urban development. Such representations do not merely describe material conditions but actively participate in the discursive production of spatial marginality, whereby certain forms of habitation are rendered illegitimate within the urban order (Marinaro, 2009; Harvey, 2005).

This framing is made explicit in the Regional Pact for La Cañada Real Galiana, which refers to the settlement as "the complex problem of the Cañada Real, whose situation was absolutely incompatible with an advanced society in the 21st century" (Regional Pact, p. 5). The evaluative force of this formulation establishes a civilizational hierarchy between legitimate urban modernity and informal Roma habitation. By invoking "advanced society" as an implicit benchmark, the policy discourse positions La Cañada—and by extension its residents—as temporally and normatively out of place. In this sense, policy discourse does not only spatialize marginality but also temporalizes it, positioning informal Roma settlements as remnants of an underdeveloped past incompatible with contemporary urban futures.

Across the analyzed documents, informal settlements are repeatedly described through a lexicon of illegality, infrastructural deficiency, and disorder. Such spatial narratives transform informal housing into a governance problem that demands normalization through relocation, urban renewal, or territorial restructuring. Similar discursive patterns have been identified in research on European Roma settlements, where informal housing is routinely framed as incompatible with modern urban citizenship and therefore subject to intervention (Fabeni, López, & Piemontese 2014). In this sense, discourse helps legitimize planning intervention by rendering spatial restructuring appear both necessary and inevitable.

The analysis further reveals that spatial governance strategies rely heavily on redlining discourses embedded within urban planning language. References to land regularization, housing normalization, and territorial adaptation implicitly delimit the legitimacy of residential permanence and constrain claims to land. These discursive strategies align with broader patterns of advanced marginality identified by Wacquant (2008), whereby spatial stigmatization functions to legitimize interventionist policies targeting marginalized populations while depoliticizing their effects.

This logic becomes particularly visible in legalistic formulations concerning land ownership. The Regional Pact states that "these lands become patrimonial assets of the Community of Madrid, which will be able to dispose of them" (Regional Pact, p. 13). This statement foregrounds state ownership and discretionary authority over land while rendering residents' presence and claims to space invisible. In discursive terms, inhabited territory is transformed into an abstract asset, facilitating dispossession through bureaucratic rationality. The erasure of inhabitants from this formulation exemplifies how spatial governance operates through depersonalization, enabling redlining and relocation while maintaining a veneer of administrative neutrality.

Policy narratives frequently establish causal links between spatial restructuring and social inclusion outcomes. Relocation and urban transformation are presented as prerequisites for improving access to education, employment, and social mobility. However, the discourse rarely acknowledges the social costs of displacement, including community fragmentation, economic instability, and the erosion of social support networks. These omissions resonate with critiques of Spanish housing and relocation policies, which have documented how such interventions often reproduce socio-spatial marginalization rather than alleviating it (Pastor Hernández, 2018; Nogués Sáez, 2010).

Framing La Cañada as a "problematic" or "incompatible" urban space thus performs important legitimizing work. As Agüí (2017) argues, such representations transform informal settlements into symbolic markers of urban disorder, enabling state intervention while obscuring the structural conditions that produce housing informality in the first place. Through this discursive operation, spatial marginality is naturalized, and interventionist planning strategies are rendered both technically justified and morally necessary.

Recent research on La Cañada Real further illustrates how spatial governance is enacted through infrastructural deprivation rather than solely through formal relocation policies. Studies on energy poverty and service disconnection show that exclusion in La Cañada has been intensified through prolonged electricity cuts, limited access to water, and the suspension of basic urban services, disproportionately affecting Roma residents (Ruiz-Rivas et al., 2023). These infrastructural conditions are not incidental but operate as governance mechanisms that render everyday life precarious while avoiding direct forms of eviction.

Framing marginality through infrastructure allows policy actors to depoliticize exclusion by presenting deprivation as a technical or logistical issue rather than as a consequence of planning decisions and legal uncertainty. In this sense, infrastructural neglect functions as a form of indirect displacement, producing pressure to relocate without formally acknowledging coercion. As scholars of urban governance have noted, such strategies allow states to govern marginal populations through withdrawal rather than intervention, shifting responsibility onto residents while maintaining regulatory authority over land and space (Anand, Gupta, & Appel, 2018).

In La Cañada, infrastructural exclusion reinforces existing discursive constructions of the settlement as incompatible with urban modernity. The absence of services is mobilized to justify further intervention, while the historical and political causes of informality remain unaddressed. This dynamic underscores how urban inclusion policies extend beyond planning documents into material practices that regulate who is allowed to inhabit the city and under what conditions, reinforcing ethnicized hierarchies of belonging through everyday deprivation rather than explicit displacement. Hence, the governance exerted over La Cañada is not only discursive, but also material.

4.4 The paradox of inclusion: cultural recognition and governance control

Across the analyzed documents, policy frameworks repeatedly foreground the value of Roma culture, diversity, and social cohesion, aligning with broader European inclusion paradigms that frame cultural diversity as a social asset contributing to pluralistic citizenship (McGarry, 2014). In this register, recognition operates symbolically, positioning Roma history and cultural heritage as elements to be acknowledged within the national narrative.

This orientation is exemplified in the National Strategy's commitment to "promote the knowledge and dissemination of Roma history and culture in order to favour recognition and reconciliation" (National Strategy, p. 17). At the level of discourse, such formulations construct inclusion as an act of symbolic incorporation, whereby historical injustice is acknowledged through cultural visibility and pedagogical dissemination. Recognition here functions as a moral and reconciliatory gesture, signaling institutional responsiveness to past discrimination and exclusion.

However, this discourse of recognition does not operate in isolation. Rather, it coexists with governance strategies that frame inclusion as contingent upon the transformation of Roma living conditions, social practices, and spatial arrangements. The same policy frameworks that promote cultural recognition simultaneously articulate expectations of normalization through housing regulation, behavioral adaptation, and administrative oversight. In this sense, symbolic inclusion operates through a conditional regime of recognition, where institutional acceptance is granted insofar as Roma populations conform to dominant norms of citizenship and urban order.

This coexistence of recognition and regulation reflects what Magazzini (2020) conceptualizes as the essentially contested nature of inclusion frameworks. Inclusion does not simply denote access or visibility, but operates as a technology of governance through which minority populations are rendered legible, manageable, and comparable within institutional regimes. Cultural recognition, while potentially emancipatory, may also coexist with, and in some cases legitimize or soften, forms of regulatory intervention that structure who can belong, under what conditions, and in which spaces.

The resulting tension produces a structural paradox at the core of inclusion governance. On the one hand, policy documents explicitly acknowledge historical discrimination against Roma communities and promote initiatives aimed at combating stigma and fostering reconciliation. On the other hand, inclusion is frequently framed as conditional upon compliance with institutional expectations of normative citizenship, including settled housing arrangements, participation in labor markets, and adherence to dominant behavioral standards. Similar paradoxes have been identified in comparative European research, where inclusion policies operate simultaneously as empowerment frameworks and as governance technologies that regulate minority populations through normalization and control (Tremlett, 2014; Creţan et al., 2021).

Taken together, the findings demonstrate that Roma inclusion policies are not internally contradictory but structurally ambivalent. Symbolic recognition and regulatory governance do not negate one another; rather, they function in tandem as layered mechanisms that administer inclusion. This ambivalence underscores the importance of critically examining policy discourse not only in terms of stated intentions, but in terms of how recognition is articulated alongside, and subordinated to, broader regimes of spatial regulation, surveillance, and normative integration. In doing so, the analysis highlights how policy discourse actively shapes participation, citizenship, and spatial belonging within contemporary urban governance contexts.

5. Discussion

This article has examined how Roma inclusion policies at the European, national, and regional levels construct social inclusion through interconnected frameworks of governance, participation, and territorial intervention in La Cañada Real. Rather than treating inclusion as a purely redistributive or symbolic project, the analysis demonstrates that inclusion is produced through a multi-scalar and spatialized mode of governance that combines rights-based recognition, administrative categorization, monitoring practices, and urban regulation. At the European level, Roma inclusion is articulated through indicators, targets, and evaluation systems designed to render inequalities measurable and comparable across member states. At the national level, these frameworks are translated into coordinated strategies of mainstreaming, participation, and targeted intervention. At the regional level, particularly in the case of the Community of Madrid and La Cañada Real, these logics become territorialized through practices of sectorization, demographic monitoring, housing intervention, and urban restructuring.

Where much research treats Roma inclusion primarily as a question of policy effectiveness or implementation, this analysis shows that inclusion itself operates as a governing rationality that produces ethnicized hierarchies of belonging.

5.1 Inclusion as a multi-scalar and spatialized mode of governance

The findings demonstrate that Roma inclusion policies are governed through differentiated scalar rationalities operating across European, national, and regional levels. At the European level, inclusion is articulated through epistemic frameworks based on indicators, targets, and comparative evaluation systems designed to render inequalities measurable across member states. At the national level, these frameworks are translated into coordinated strategies of mainstreaming, participation, and targeted intervention. At the regional level, particularly in the case of the Community of Madrid and La Cañada Real Galiana, these logics become territorialized through demographic segmentation, housing intervention, urban restructuring, and infrastructural management.

Importantly, governance changes form across scales. While the European framework primarily governs through abstraction—benchmarks, indicators, and comparative legibility—the regional level translates these epistemic categories into materially territorial forms of intervention. In La Cañada Real, inclusion becomes operationalized through sectorization, demographic registries, relocation planning, and infrastructural regulation. The movement across scales therefore reflects a transformation from statistical legibility to territorial governance. This scalar differentiation resonates with broader scholarship on multi-level governance and urban governmentality, which has shown how policy rationalities mutate as they move from supranational coordination to localized implementation (Brenner, 2004; Jessop, 2002).

Administrative categorization produces Roma populations as legible policy subjects defined through vulnerability and "special attention." Surveillance practices such as censuses, educational monitoring, and evaluation systems then operationalize this legibility by translating social inequality into measurable indicators of integration.

Spatial governance extends these logics into the urban realm, where informal settlements become objects of normalization through relocation, regularization, and planning intervention. Cultural recognition initiatives operate alongside these mechanisms, symbolically incorporating Roma identity into broader narratives of diversity and inclusion while leaving intact the regulatory conditions through which belonging continues to be organized.

Taken together, the findings suggest that Roma inclusion policies increasingly function as spatialized technologies of governance through which ethnic difference is managed across institutional and territorial scales. Inclusion policies do not simply address urban marginality as a pre-existing condition. Through demographic categorization, territorial intervention, relocation frameworks, and infrastructural regulation, they also participate in organizing how marginality becomes administratively visible and governable (Harvey, 2005; Yiftachel, 2002; Marinaro, 2009). These dynamics also raise broader questions regarding differential urban citizenship and the uneven right to inhabit urban space (Holston, 2008; Lefebvre, 1996).

5.2 From vulnerability to legibility: categorization, surveillance, and responsibilization

A central contribution of this study lies in showing how vulnerability-based categorization operates less as a neutral descriptive framework than as an administrative technology of governance. By constructing Roma communities as populations "at risk" or deserving "special attention," policy discourse legitimizes intervention while delimiting the terms whereby Roma agency becomes institutionally intelligible. Vulnerability therefore functions not only as a socio-economic descriptor but as a mechanism through which intervention becomes actionable, measurable, and continuously expandable.

These dynamics vary across governance scales. At the European and national levels, governance operates primarily through indicators, policy coordination, and monitoring systems that construct Roma populations as measurable policy categories. At the regional level, however, these forms of legibility become territorialized through population registries, sector-based intervention, and localized surveillance mechanisms linked to housing and urban management. Different governance scales therefore produce different institutional constructions of Roma subjectivity: the European level constructs Roma populations primarily as measurable minority groups; the national level frames them as vulnerable citizens requiring coordinated inclusion strategies; and the regional level increasingly governs Roma populations as territorially situated urban subjects embedded within concrete problems of housing, infrastructure, and spatial management.

Importantly, the findings complicate purely punitive interpretations of governance. The analyzed policies do address structural inequalities related to housing, infrastructure, education, and labor-market exclusion. However, redistributive intervention coexists with responsibilizing logics that frame successful inclusion through behavioral adaptation, self-regulation, and participation in institutional trajectories. Inclusion is therefore articulated through a dual logic: populations are supported through welfare and housing measures while simultaneously expected to align themselves with dominant institutional norms of education, employment, health, and civic participation.

This coexistence reflects broader governmentality in which care-oriented interventions and regulatory oversight become mutually reinforcing rather than contradictory (Foucault, 2010; Legg, 2005). Inclusion operates not only through redistribution, but through the continuous production of institutional visibility, evaluability, and normalized conduct.

5.3 Urban space, territorial legitimacy, and the governance of marginality

The analysis further demonstrates that urban space constitutes a central terrain that legitimizes governance. Informal settlements such as La Cañada Real Galiana are repeatedly constructed as spaces incompatible with legality, infrastructural order, and dominant imaginaries of urban modernity. These representations perform important political work by reframing structural housing inequality as a spatial and technical problem requiring intervention, thereby depoliticizing displacement and territorial restructuring.

Significant differences emerge across governance scales. Whereas European and national frameworks predominantly frame inclusion through rights, equality, and socio-economic disparities, regional urban policy discourse places greater emphasis on legality, territorial order, infrastructural compatibility, and urban normalization. Exclusion is thus transformed from a social problem into a spatial one linked to informality, irregularity, and deficient urban integration.

By positioning spatial restructuring as a prerequisite for inclusion, policy discourse establishes a normative model of urban citizenship grounded in formal housing, legal regularity, and administrative visibility. This finding resonates with critical urban scholarship showing how planning operates as a mechanism of spatial regulation over marginalized populations (Yiftachel, 2002; Wacquant, 2008). Rather than representing an exceptional governance failure, La Cañada condenses broader European and national inclusion rationalities into a territorially concentrated form, making visible how inclusion policies become territorialized through relocation planning, infrastructural regulation, and the management of informal urban space.

The findings also highlight the importance of infrastructure within these processes. While European and national frameworks govern primarily through knowledge production and policy coordination, regional governance increasingly operates through infrastructure itself. In La Cañada, access to electricity, housing regularization, and urban services become mechanisms through which inclusion and territorial legitimacy are materially regulated. Governance therefore operates not only through formal relocation policies but also through differentiated access to urban services and infrastructural support. This aligns with scholarship emphasizing how infrastructure functions as a political technology through which states govern everyday life and urban belonging (Anand, Gupta, & Appel, 2018; Graham & Marvin, 2001).

5.4 Recognition, participation, and the ambivalence of inclusion

The coexistence of cultural recognition initiatives with regulatory governance strategies reveals a structural ambivalence at the core of contemporary inclusion frameworks. Policy documents repeatedly emphasize Roma history, participation, diversity, and intercultural dialogue as elements of social cohesion and democratic inclusion. At the same time, these commitments coexist with mechanisms of surveillance, territorial regulation, and behavioral normalization.

Although these policy frameworks rarely employ explicit racial terminology, they nevertheless construct Roma populations as differentiated objects of intervention through categories of vulnerability, integration, and

social risk. As Goldberg (2002) argues, contemporary racial governance frequently operates through apparently neutral administrative and developmental frameworks rather than through overt biological racism. The emphasis on monitoring, activation, and territorial intervention therefore contributes to the production of Roma populations as administratively legible and governable subjects.

Important differences also emerge in how participation is articulated across governance scales. At the European and national levels, participation is framed primarily as a democratic principle linked to equality, representation, and inclusion throughout the policy cycle. Participation therefore functions not only as a democratic principle but also as a selective mechanism through which institutional actors structure the terms, scales, and acceptable forms of engagement. Roma communities are invited into governance processes, yet primarily through participatory frameworks already organized by state-defined priorities, territorial categories, and intervention logics. At the same time, these participatory spaces may also create limited opportunities for negotiation, visibility, and institutional contestation.

Recognition therefore does not displace regulatory governance; rather, it coexists with and at times legitimizes it by softening its coercive dimensions. Roma communities are recognized as legitimate stakeholders, but primarily through institutional channels already structured by state governance frameworks. Inclusion thus functions through a conditional regime of recognition in which legitimacy, participation, and full urban citizenship remain closely tied to conformity with dominant institutional and spatial norms.

These findings extend critiques of recognition-based inclusion advanced by Fraser (2000) and subsequent scholarship on Roma governance (Tremlett, 2014; Creţan et al., 2021). They also resonate with broader critiques of liberal multiculturalism, which have shown how diversity recognition may coexist with persistent forms of structural inequality and governmental regulation (Brown, 2006). The contribution of the present analysis lies in showing how this ambivalence is spatially organized within urban governance regimes where recognition, regulation, and territorial management become mutually reinforcing rather than contradictory.

5.5 Rethinking inclusion as a contested urban process

This study reconceptualizes social inclusion as a contested urban process rather than a linear or inherently emancipatory policy goal. Inclusion emerges as a governing rationality operating through language, infrastructure, spatial regulation, and administrative practice, shaping the conditions under which participation, citizenship, and legitimacy become possible.

At the same time, the analysis does not reduce inclusion policies to domination alone. The analyzed frameworks contain genuine commitments to redistribution, anti-discrimination, infrastructural improvement, and participation. Yet these commitments coexist with categorization practices, monitoring systems, and a territorial governance framework that continue to position Roma populations as administratively manageable subjects of intervention.

The findings, therefore, point less toward a simple contradiction than toward a structurally ambivalent model of governance in which inclusion simultaneously operates through support, regulation, recognition, and normalization. More equitable inclusion frameworks would require moving beyond vulnerability-based categorization toward forms of governance that redistribute not only resources, but also political agency and spatial legitimacy. This would involve expanding participation beyond consultative representation and recognizing Roma

communities not merely as beneficiaries of intervention, but as political actors with greater agency over the production of urban space and the governance of inclusion itself (Young, 2000).

Conclusion

This article has shown how Roma inclusion policies across European, national, and regional levels govern ethnic difference through interconnected forms of urban and administrative governance, focusing on La Cañada Real Galiana as a paradigmatic case. Rather than operating solely as instruments of social support, inclusion policies function as spatialized technologies of governance that combine administrative categorization, monitoring, and urban intervention to regulate Roma presence, visibility, and belonging (Sigona, 2005; Magazzini, 2020).

In policy discourse, La Cañada is repeatedly framed as incompatible with legality, infrastructural order, and contemporary urban life, transforming structural housing inequalities into spatial problems requiring technical and territorial solutions. Rather than representing an exceptional governance failure, La Cañada condenses broader European and national inclusion rationalities into a territorially concentrated form, making visible how inclusion, spatial normalization, infrastructural governance, and administrative legibility converge within urban margins (Yiftachel, 2002; Wacquant, 2008).

By centering policy discourse, this study shows that inclusion governance is not uniform across scales: at the European level it operates primarily through epistemic frameworks of legibility, monitoring, and coordination, while at the regional level it becomes territorialized through urban intervention, infrastructural regulation, and the management of informal space. The findings call for a critical reassessment of inclusion frameworks that prioritize normalization and relocation over structural redistribution, participatory frameworks, infrastructural justice, and the recognition of Roma communities as political actors with greater influence over the production and governance of urban space (Tremlett, 2014; Creţan et al., 2021; Holston, 2008).

Conflict of Interests

The author declares no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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(Imposed) Division of Cyprus: Social and Political Exclusion through Passports

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Abstract

This paper positions itself as a state-of-the art paper by illustrating the past and present the division of the island of Cyprus and its exclusionary effects on economic, social, cultural, and political life on the island. We provide a brief conceptualization of passports and citizenship and their ties to nations and states, followed by the history of Cyprus that captures the governance of the island by different entities. In our analysis, we aim to explore the origins of the divide of the Turkish Cypriot and Greek Cypriot communities that were once united in a single state. We use the framework of Turner (1990) and research the top-down division on the island being imposed by different (trans)national actors and the manifestations of these within the communities and physical spaces. We also explore the differences in attitudes within the Turkish Cypriot and Greek Cypriot communities from the bottom-up. Throughout our analysis, we use specific literal and symbolic aspects of passports that characterize the exclusion faced in both the Republic of Cyprus (ROC) and Turkish Republic of Northern Cyprus (TRNC).

Keywords

Passport, Cyprus, Citizenship, Political Science, Nation State, Belonging

Introduction

Every year, Henley Passport Index publishes a ranking of the passports of each country based on their ability to enter other countries visa-free (Neammanee & Lee, 2022). While for most people their passport and its strength may become a topic of discussion when considering travelling or applying for a visa, the concept of a passport is symbolic of a recent history and an ongoing division for the Cypriot people.

Our interest in passports is based in Gulddal and Payne, who see passports not only as an object of study, but also as a lens through which to look at the world (2017). This perspective of using passports as a tool for analysis allows them to meaningfully reflect on the relationship between mobility, state security and social inequality (Gulddal & Payne, 2017). Building forth on their study, we aim to uncover fresh perspectives about the division

of Cyprus by using passports as an analytical lens. More specifically, the focus of the paper is on the (imposed) division of Greek Cypriot and Turkish Cypriot communities manifesting as social and political exclusion through passports, both literally and symbolically.

Our focus on passport politics informed the choice of our case study, since the division of the island and differing values of the passports provides a valuable insight into its multidimensional aspect. Academic literature on the division of Cyprus is abundant, however a specific look at political and social exclusions using passports may provide new insights and spark new academic debates about who the Cypriot people are and what the possible origins of the divide might be. We position our study as a state-of-the-art paper aiming to present the past and present scholarship on Cyprus by using passports as a lens of inquiry. To do so, we benefit from a literature review of both contemporary studies in Cyprus and foundational interdisciplinary literature of the social sciences. This case study thus allows us to dive deeper into the concept of a passport and the passport as an analytical lens, as it is related to different themes within foundational social science theories, such as citizenship, the nation-state, biopower, and more.

We start by introducing the core concept of passports and their symbolic aspect. We briefly go over the history of Cyprus as it is essential for our analysis. We discuss how we come across exclusion, symbolized by passports, in the international political scene and then dive into the consequences for locals. Even though the global and the local are always connected, this division helps us to better understand whether the division of Cyprus into a Turkish and Greek side is imposed or also happening from the ground up. Turner's (1990) notion on the origin of nationalism is central to our overall analysis. Finally, we conclude by bringing both imposed and bottom-up perspectives together and providing possible points of further research to the everchanging political and social scene of Cyprus.

Conceptualization of Passports and Citizenship

In order to briefly conceptualize passports and what they reflect, we present two perspectives that are differently characterized but have significant overlapping aspects: the power perspective and the cultural perspective.

Through a power perspective, while the legal legitimacy of passports is derived from other personal documents, the signifying capabilities of the passport to represent one's citizenship cannot be understated, as the passport operates as a distinguisher between "the citizen and the alien" (Gulddal & Payne, 2017). In other words, passports become representative of legal citizenship and thus enable legal mobility between and within established states. Citizenship is seen as the foundation for the modern nation-state: a clear demarcation of who belongs, and thus has access to the rights, privileges and liberties of a particular state (Wallerstein, 2003). Wallerstein notes the duality of this. By including some, it is inevitable that others are excluded (Wallerstein, 2003). A state has limited resources, services, and positions of power. The more individuals that are allowed access to these, the more diffused they will be. Herein lies the justification for the exclusion: limit "the right to", thereby increasing "the right for" (Wallerstein, 2003, p.652). The success of one group comes at the expense of another (Wallerstein, 2003), resembling a zero-sum game where the gains of the citizens equal the loss of the non-citizens. Citizenship

is thus inextricably linked with statehood. It is a form of identification that legitimizes one's access to a nation-state; a status that is valuable, precarious, and finite.

To further highlight the role of state having authority over access to citizenship, Michel Foucault discusses biopower. Separate from the disciplinary power which the state wields over the population as individuals through more overt displays of subjugation and violence; biopower refers specifically to the subtle power and control exerted from a sovereign over humans as a population (Foucault, 2003). Through such technology as the establishment of demographics and their forecasts, for example, the state has been able to regulate individuals by speaking to them as a population (Foucault, 2003). From the perspective of a sovereign, passports are the contemporary result of this mass individualization of people, funneled into a collective 'population'. Hence, passports list the biographical features of one person, which make them an individual, yet this signifies that such individuals belong under the jurisdiction of a said state, "massifying" them into this stationary position, thus becoming a manifestation of biopower (Foucault, 2003). The key component resides in the stationary aspect, as the state must contain the identified population within a territory (Torpey, 1999). This results in expropriating the means of movement from the citizens, central to the political aspect of travel and identification. It allows the state to anchor itself to specific subjects, and by extension authorizing who is permitted into the stable population (Torpey, 1999). Passports are the products of said expropriation, resulting in a monopoly on the authority over movement to citizens and non-citizens. Herein lies the political aspect of passports: states define populations under their jurisdiction and attach a passport onto a body as a stigmata, a marker of who belongs to which state and who can travel where.

The converse is true for cultural perspectives on passports, where states cannot expropriate populations out of communal roots for apt jurisdiction (O'Byrne, 2001). The socio-anthropological stance instead emphasizes the social rift a passport connotes across distinct populations. From this perspective, the passport acts as a divider and distinguisher of societies along lines of identity and culture. Crucially, this stance proposes an alternative dimension to the exclusionary power of passports, distinguishing them further from citizenship which focuses on communal affiliation. This cultural approach positions citizenship as a collective and an active designation, highlighting its function beyond that of an identification status. It is the product of a shared history and social struggles that manifest into a political culture, where inclusion is defined through everyday interactions (Alldred & Fox, 2019). Here, citizenship is active, expansive and can extend beyond the legal boundaries of a nation-state (Alldred & Fox, 2019) For instance, a person who loses a passport does not suddenly cease to exist nor do they lose their citizenship rights, yet the legal system will be troubled to identify the individual (Koepsell & Smith, 2014). Deductively, citizenship is not a legal document and does not generate belonging in a community by wielding it. The immersion within a citizenry stems from local mechanisms of culture, native to communities. Through this dynamic, passports gain a cultural dimension: cultural contexts can surpass legality to exclude constitutional citizens. For instance, a Turkish Cypriot with citizenship from the Republic of Cyprus may be culturally excluded on the premise that they do not speak Greek Cypriot. Consequently, constitutional citizens may be limited from enjoying state resources such as public health.

Two conceptualizations of citizenship and passports correspond to a top-down and a bottom-up approach proposed by Turner (1990). The former refers to a status that is bestowed upon a person by a state, governing body, or legal framework, while the latter emerges from the community itself and characterizes cultural belonging.

Importantly, the top-down and bottom-up aspects of citizenship are not always coexistent (Beaman, 2016). One can be a citizen legally, yet not associate with, or be excluded from, being a citizen culturally and vice versa (Beaman, 2016). This inevitably creates dialogue between the two perspectives, where the power perspective describes passports as a legal symbol of belonging whereas the cultural perspective positions citizenship as the entry-ticket for immersion within communities.

Historical Context of Cyprus

Cyprus has an ancient and complex history that requires significant attention to depict a full picture of how the division was imposed between Greek Cypriots and Turkish Cypriots. Throughout this ancient history, Cyprus has been in the control of many external powers or has existed separately (Goult et al., 2025), however for the purposes of this paper, analysis will be undertaken starting from the 1878 Cyprus Convention. In the convention, Ottomans and the British agreed that Cyprus will remain under Turkish sovereignty however the administration will belong to the British government. The British Empire wanted to expand their power in the Mediterranean and the Middle East and proposed to the Sultan that they would support their campaigns against Russia (Goult et al., 2025). Under British control over the island, the divide between the Christian and Muslim Cypriots started manifesting itself explicitly as British overlords favored Christian infrastructures and residents (Goult et al., 2025). During the First World War in 1914, this convention was overruled and the British annexed the island. Greece was offered Cyprus in exchange for fulfilling their treaty obligations with Serbia, which the Greek government refused. The newly formed Turkish Republic then recognized British control over the island in the Treaty of Lausanne in 1923. Two years later, the island was transformed into a Crown Colony (Goult et al., 2025). This development was received positively by the Greek Cypriot population expecting a union with Greece in the future, however it also fundamentally angered the Turkish Cypriot population and led to major demonstrations from both sides over the following years. British officials supported self-government of the island by the Cypriots following the Second World War, which then met opposition from Greek Cypriots who supported “Enosis”– the idea of merging with Greece. The campaign for this was initiated in 1955 when a former officer in the Greek army formed an organization called EOKA– recognized by the Turkish government as a terrorist organization to this day. The organization, as a collection of far-right organizations that supported Enosis, bombed public buildings and killed people they deemed as opponents of the cause (Varnava, 2025).

Shortly after this event in Cyprus, there were a series of government instigated riots against Greek and other minority citizens in Istanbul on the 6th and 7th of September 1955, referred to as the Istanbul pogrom (Zayas, 2007). This event was argued as retaliation to the explosion that happened near the Turkish consulate in Thessaloniki. Following these violent riots, the British-influenced governing in the island left its place to a united ruling of Cyprus. In 1960, the constitution of the new common Cypriot state was prepared with the agreements of Greece, Türkiye, the United Kingdom, and the United Nations; and set into motion. According to this constitution, the president of Cyprus would be a Greek Cypriot while the vice-president would be a Turkish Cypriot, and the representatives were calculated based on the population of the Greek Cypriots and Turkish Cypriots on the island, 35 representatives from the Greek community and 15 representatives from the Turkish one (Skoutaris, 2011). The British still maintained the previous rights of trade and operated two military bases that were considered a part of the British colony within the island. The Republic of Cyprus (ROC) was not attributed much legitimacy from the

Greek Cypriots on the claim of giving more representation in government roles for Turkish Cypriots. The intercommunal violence reached its peak on December 21, 1963, when EOKA members attacked and murdered Turkish Cypriot households (Keser, 2013). This period of time until the Christmas day, filled with violence and murders, is remembered as "Bloody Christmas". These events, coupled with the dissatisfaction among Greek Cypriots with the existing political arrangement culminated in a 1974 coup d'état, backed by the Greek military junta, aimed at overthrowing President Makarios of the ROC (Skoutaris, 2011).

Following the breach of agreement in the constitution, the Turkish military intervened in the situation capturing important cities on the island. While the invasion was 36% of the land, the majority of the areas with agriculture, industries, and tourism were taken over– resulting in United Nations (UN) involvement in ceasefire negotiations. With the UN's presence, the buffer zone called 'Green Line' was drawn in the middle of the island, leaving some cities deserted and a great population of both Greek Cypriots and Turkish Cypriots as refugees. Subsequently, Türkiye began to exercise de facto control over the northern part of the island from 1975 onward. In 1983, Turkish Republic of Northern Cyprus (TRNC) announced its independence, claiming the ROC had "lost its legitimacy" (Skoutaris, 2011, p.29). In the aftermath, the UN rejected the claims of the de facto Turkish state; the European Union (EU) did not recognize the TRNC and expressed that the ROC was still the sovereign state in the (whole of the) island.

After the formal (but not recognized) TRNC came into picture, the island had two states with two separate governments operating. Following the interventions in 1974-1975, UN mediation, British presence in the military bases, and relocation of Greek Cypriots in the south and Turkish Cypriots in the north with the Green Line in between; the interaction between ROC and TRNC citizens were kept at minimum with no opportunities to cross the border until the 2003 election of the new TRNC president (Dikomitis, 2012). In 2003, crossing points were opened, starting with the one in the divided city of Nicosia. This allowed Greek Cypriots and Turkish Cypriots holding proper papers to cross the border initially to visit their old towns while other foreign passport holders still could not cross the border.

While the passing between the two parts eased with the open borders, in the 2004 enlargement of the European Union, the ROC became a member of it. The same year, the UN proposed the Annan Plan that sketched a new "United Republic of Cyprus" that would encompass all Cypriots. Right after the admission of the ROC to the European Union, the Annan Plan was put to referendum resulting in a total of 66% "against" votes (Dikomitis, 2012). Eventually the plan was dismissed, and the division of the two communities persists to this day.

Imposed Division

The United Kingdom's (UK) colonial administration of Cyprus laid the foundation for today's imposed division of the island. Enosis and the Greek Cypriot ambitions to unify with Greece threatened the UK's sovereignty over Cyprus– and its broader geopolitical and security interests. Although the British supported the self-governance of the island, they still aimed to hold authority over Cyprus, thus they were not in favor of the merge with Greece. To minimize the possibility of Enosis, Turkish Cypriot minorities were favored by British policies granting them disproportionate levels of influences compared to their demographic representation (Demetriou, 2019). Divide-and-conquer tactics were a common strategy during British colonial rule to fragment

local societies and discourage organized pushbacks (Jawad & Shabbir, 2025). As such, the UK manufactured differences between the two Cypriot communities, institutionalizing these through policies and facilitating the growth of intrastate ethnic and religious tensions. These manifested in the violent period of 1955-1959, and the creation of the ROC in 1960. The Treaty of Establishment triangulated the interests of the UK, Türkiye and Greece as "guarantors of the new republic" (Demetriou, 2019, p.411-412). This undermined Cyprus' de facto independence by allowing the UK to maintain sovereignty over its bases and granted Greece and Türkiye the right to permanent military posts (Demetriou, 2019). Thus, Cyprus was a new and unified state, with a divided population as the result of colonial policies and whose status was determined by exterior states. The following dynamics and their implications resulted in a top-down imposed division (Turner, 1990) which is crystalized as the values of passports distinguishing respective communities in Cyprus.

Using Wallerstein's (2003) exclusion through inclusion, the distinction between the two communities can be observed through the ingroup and outgroup framework. While the ROC presents itself as a unified state, the Turkish Cypriot and Greek Cypriot communities are influenced by the sovereigns of the Turkish and Greek states respectively. One instance of a previous hostility that informs this separation of communities is the aforementioned Istanbul pogrom in 1955 that illustrates the manifestation of outgroup antagonism outside of the island, directed towards ethnically Greek people living in Istanbul (Zayas, 2007). Bringing the tensions fueled by the Greek and Turkish states to the island, after the foundation of ROC, the recorded instances of reciprocal acts of violence further supported the ingroup-outgroup divide. Wallerstein (2003) emphasizes that this division is a consequence of the concept of citizenship that emerges through inclusion (being equally included as a legal citizen of the ROC) and exclusion (through ethnic sovereigns fueling the divide). Some of the most significant of such events are the Bloody Christmas and the attacks on villages elaborated in the Historical Context of Cyprus section of this paper (Keser, 2013; Papadakis, 2003). Even under the roof of a singular state, informed by the previous acts of violence and the stances of the sovereigns of Turkish and Greek states, the peaceful coexistence narrative between the two communities was thus constantly undermined. This indicates a historically grounded and top-down (from external states) motivated division between the two communities.

In the further official division of the island with the presence of the TRNC, it is apparent that this divide is not neutral in terms of international recognition. While no single state effectively applies jurisdiction over the whole territory of Cyprus, both sides are not equally recognized. The ROC recognition actively hinders the TRNC recognition through the benefits it receives, namely international political agency, sprouting from the recognition of a single state, pointing to Wallerstein's inclusion through exclusion principle (Wallerstein, 2003). So, the legitimacy of the ROC passport comes at the expense of the illegitimacy of the TRNC passport. Similarly, UN recognition of the ROC comes at the expense of TRNC's official capacity to engage in international politics (Bouris & Kyris, 2017). The passport remains a looming reminder of the predicament that the TRNC is not internationally recognized.

Politics surrounding passports is further troubled by the different values of the passports that Turkish Cypriots have access to. When presented with the opportunity of strengthened mobility, Turkish Cypriots can choose Turkish or ROC passports, siphoning the authority on movement from the TRNC state to neighboring territories (Krasniqi, 2019). Since Turkish Cypriots have the chance to have the TRNC passport as well, the state thus loses its central power to formally designate its population through mobility, as using different passports make Turkish

Cypriots elusive from TRNC state control. In other words, the TRNC losing its central monopoly on mobility, by international non-recognition, it also loses its hold on its population. This creates a devious cycle on the island: in light of heightened mobility advantages, the international illegitimacy of the TRNC convinces Turkish Cypriots to choose the ROC passport instead; however, the state consequently loses its power to designate its population and becomes more illegitimate.

While the interaction between the states and the citizen designation is conflicted, the 2004 expansion of the EU perpetuated the turbulent dynamics between the ROC and TRNC. The ROC, formally recognized by the EU, was thus a recipient of EU economic and political benefits, and the residents were able to function within the EU as European citizens. Increased social, political, and economic mobility were on the rise for the citizens of the ROC; due to access to EU markets, so were economic advantages, and a voice in the EU political sphere (Christou, 2010). However, the division between the north and south resulted in an uneven playing field for the TRNC citizens, as "removing fences within [a borderless Europe] built higher fences around" (Christou, 2010, pp. 62-63; Jansen, 2009, p. 819). The TRNC thus lacked the external sovereignty which the ROC possessed. The lack of external sovereignty can be largely accredited to Greece, as the nation had used its position within the EU to limit the integration of the TRNC into the European Union (Bouris & Kyris, 2017). This was on the grounds that the economic and political integration of the TRNC into EU proceedings would, by implication, recognize the TRNC as an established state (Bouris & Kyris, 2017). This lack of recognition severely limited the capabilities of the EU to offer economic partnership, as having a potential legal agreement with a local government in the TRNC would not technically have any real legal standing (Bouris & Kyris, 2017).

As a result of being unrecognized, the TRNC faced international embargoes on trade (Günçavdi & Küçükçifçi, 2009). These embargoes further undermined the already small capabilities of the TRNC's tradable GDP, which limited a more liberal economic integration (Günçavdi & Küçükçifçi, 2009). For example, international private companies, such as McDonalds, have opened locations in the south, but have not operated in the north (*Locate: McDonald's Cyprus*, n.d.). This lack of alternative private investment into the TRNC led to the development and reliance upon non-tradable sectors, such as the tourism industry (Warner, 1999; Günçavdi & Küçükçifçi, 2009). Yet simultaneously, the tourism sector, as well as other economic sectors, was severely undermined as a result of the international stance towards the TRNC in general (Warner, 1999; Günçavdi & Küçükçifçi, 2009).

Therefore, the denial of integration efforts by Greek representation in the EU perpetuated not only the socioeconomic and spatial divide between the north and south but further influenced what Saskia Sassen describes as "embedded borders" (Christou, 2010; Sassen, 2006, p.416). Embedded borders and borderings refer to how people, things, and instruments which "endogenize the border", as the traditional borders of territories are undermined by transnational corporations, and international economic operations (Sassen, 2006). This aspect of undermining leads to the limitation of the TRNC's own governance, as international regulations and private assemblages ultimately override self-autonomizing efforts (Sassen, 2017). Resultantly, the feelings towards the EU and UN, for example, are split between the north and south, as the individual sovereignty of Cypriots in the north is heavily limited as a result of this third-party intervention, while the southerners are expressing opposite feelings due to increased individual sovereignty (Christou, 2010). In essence, the pre-imposed division takes on a stronger cultural and interpersonal character.

To summarize, this section deals with the imposed division in Cyprus, foregrounding the different international actors as they relate to central mechanisms of the state. Central to this is the recognition that the division of Cyprus can be viewed through the top-down perspective, as suggested by Turner (1990). Furthermore, Wallerstein's (2003) fundamental idea that the recognition of the ingroup comes at the expense of the outgroup, shows its significance in the context of Cyprus. This is where the passport politics come in, as both the passports of the TRNC and the state's ability to control movement and exert its sovereignty are limited due to a lack of international recognition, exemplified by the UN. Lastly, by using Günçavdi and Küçükçifçi (2009) and Sassen (2006), we explore the relation between the expansion of the EU, the advantages for the ROC, and the disadvantages for the TRNC, as these relate to recognition and external sovereignty.

Local Consequences

To analyze the implications of this division amongst the communities, we utilize the concept of a nation as an "imagined community" proposed by Benedict Andersen (2006a). This framing of a nation is a construct with four sub-parts. Firstly, it is "imagined" in the sense that no one will ever meet all the people in their nation, yet they still see themselves as part of the same community. Secondly, this imagined community is limited. It is vital that clear distinctions are made about who does and does not belong. Thirdly, the nation is sovereign, which refers to the freedom of the nation to do as they please within their boundaries. Then lastly, the nation is a "community" because it is "always conceived of as a deep, horizontal comradeship" (Anderson, 2006a, p.7). This leads to an intricate examination of the local consequences, as the only medium of interaction of the whole of this "imagined community" is those local consequences created by their participation. Local consequences refer to politics, local culture, language, bureaucracy, and spatial implications to the places of inhabitance that materialized through this division.

Political parties on the island reflect deeper sentiments regarding their imagined community and whether the Cypriots are one people or two. This is visible in political stances as well as their commemoration of Cypriot history. Kanol and Pirishis (2022) lay out how attitudes regarding the divide have been incorporated into political parties in the ROC. Safa (2025) analyzes how parties in the TRNC relate to the divide as well as the effect of Türkiye's influence on local politics. The distinction in attitudes between these parties is supported by Papadakis' (2003) earlier analysis on commemoration rituals of these different political parties. The public commemoration of certain historical events, the choosing which events to commemorate, which not, and what exactly is commemorated and how, builds a narrative of Cyprus' history (Papadakis, 2003). These narratives directly relate to how these political parties conceive their nation, since it is constitutive of a national memory and what they conceive as 'us'.

In the ROC, both ALEK, a social democratic party that held office in Cyprus between 2008 and 2013, and DISY, representing modern right-wing citizens and ALEK's main opposition, hold "concessionist" ideas (Bèrtoa & Dumont, 2022, p.176). This means that both parties would like to see Cyprus reunited, whether this is a moderate approach in the case of ALEK, or progressive, yet nationalist, in the case of DISY. This suggests that to these political parties and the people they represent, the imagined community extends beyond Greek Cypriots to include

Turkish Cypriots. Supporting this, in the commemoration of Cypriot history, these parties showed discontent about the division and envisioned a future in which the island is reunited in a bi-national state (Papadakis, 2003).

This is not the case in political parties in the TRNC. The UBP, a right-wing nationalist party, strongly advocates for ties with Türkiye and a so-called two-state solution (Safa, 2025). This "rejectionist" attitude goes to show that the UBP and the people it represents, do not want Cyprus to be unified (Bèrtoa & Dumont, 2022, p.176). This means that they do not consider themselves as part of the same people, the same imagined community. Papadakis shows that right-wing parties in the TRNC perceive the time before the separation of the two nations as a time of "past animosity and oppression" by studying commemorative rituals (Papadakis, 2003, p.261). In other words, the time in which the Greek Cypriots and Turkish Cypriots were still part of the same state is commemorated negatively as a time without freedom. Consequently, this supports the narrative that the current division brought independence for the Turkish Cypriots from the Greek Cypriot oppression. Their imagined community only extends to the Turkish Cypriots.

While the political parties in both the ROC and the TRNC operated based on different conceptualizations of the divide, the tension surrounding the question of whether Cyprus is one or two nations was in its height in 2004, when the Annan plan to reunify Cyprus was overturned by means of referendum (Dikomitis, 2012). Using Anderson's framework (2006), it is clear that some of the Cypriots were able to imagine each other as part of the same community more than others. The UBP and the people it represents possesses the sense of deep, horizontal comradeship only with other Turkish Cypriots, focusing on their shared historical oppression under the ROC rule (Safa, 2025). ALEK and DISY perceive this comradeship with all the Cypriots on the island focusing on their shared troubles throughout history (Bèrtoa & Dumont, 2022). Thus, it becomes clear that the narratives formed by commemorative rituals shape how groups on the island have different conceptions of either transcending or reinforcing the division. It is important to explore the reasons behind this and the implications on social and/or political exclusion.

In the chapter *The Origin of the National Consciousness*, Anderson (2006a) lays out how capitalism, print, and nation building are interconnected. In this paper, we mainly focus on his argument regarding the connection between administrative vernacular and language-power. According to Anderson (2006a), the choice of language for governing and administration has historically held much power. In the case of the nation-state, language is vital for understanding who is and who is not part of the nation or imagined community, since a shared language gives a sense of comradeship (Anderson, 2006a).

Before 1960, Cyprus had two official languages, Modern Standard Greek and Standard Turkish. However, the administrative vernacular was– reminiscent of colonial times– English (Kaplan et al., 2013). The lack of shared language culminated into strong nationalist trends for both communities and laid the groundwork for the rising tensions in the 1970s (Kaplan et al., 2013). After the Turkish intervened, the island became ethnically and linguistically separated, and both the ROC and the TRNC slowly established monolingualism. This asserts the two countries as fully independent from the British, and at the same time, excludes the bilingual and bi-national identity, which characterized Cyprus before the division. The fact that the Cypriots are missing a shared language means that they are missing "the embryo of the nationally imagined community" (Anderson, 2006b, p.44). This division is visible on the island by the changing of place and street names, converting churches to mosques, and giving them Turkish names (Potapkina, 2020).

It is clear that the residence configurations are almost completely altered after the Green Line was drawn. Following the separation of southern and northern parts of the island, there were masses of Turkish Cypriots and Greek Cypriots, who had to leave their homes (Dikomitis, 2012; Gurel & Ozersay, 2007). To make visible the social impacts of the formal division, we explore the exclusionary results of this separation in the events of Turkish Cypriots and Greek Cypriots becoming refugees, new ownership of the properties left behind, and the encounter with the "Other" by going back to previous homes.

Between 1955-1974, groups of both Turkish Cypriot and Greek Cypriot populations became refugees in the island, with an undecided future (Kliot & Mansfeld, 1994). This was mainly tied to either mass forced displacements of Turkish Cypriots due to attacks on Turkish villages when the ROC was founded (1960), or to the Turkish military occupation of the north (1974). While the first event mainly resulted in Turkish Cypriots being considered refugees, the second event deemed both populations as refugees for two distinct reasons. Turkish Cypriots became refugees, or stateless persons (Wallerstein, 2003) since the Turkish state did not recognize the ROC as a legitimate state after the Greek coup, therefore rendering the island as unrepresented by any entity. Contrastingly, with the Turkish military intervention, Greek Cypriots became refugees due to being forcefully moved to the southern side by the entity they, in return, considered illegitimate. This contradiction of (un)recognition and (il)legitimacy of the two entities stripped both Turkish Cypriots and Greek Cypriots of their properties and rights to have properties.

In the newly founded TRNC, the properties that were left from Greek Cypriot refugees were allocated to Turkish Cypriots. This allocation was done through a "point system" that the elder members of the towns decided for each family to be relocated in a place based on their previous property in the south (Navaro-Yashin, 2007, p.88). While this procedure appears to be inclusionary and just in terms of finding shelter for the Turkish Cypriot refugees, it created tensions amongst the communities.

On the one hand, during the appointment of land on the northern side, the TRNC government issued land deeds based on the point system. Yet, since the state of the TRNC was (and is) not recognized by international law, the documents issued by the TRNC are considered illegitimate. Historically, the importance of land distribution and access to property is connected to the idea of citizenship and belonging (Jones, 2016). In the early stages of the development of the idea of citizenship, Jones (2016) provides an example that while human rights were assumed to be universal, a distinction of active and passive citizens were made based on property ownership. While active citizens were allowed to vote and protected by law; passive citizens were excluded from many forms of protection (Jones, 2016). While Jones mainly explores this exclusion based on class narratives, we focus on citizenship and discrimination in relation to ethnicity. While the Turkish military presence was aimed at securing the universally claimed rights of the similarly ethnicized Turkish Cypriots, the TRNC further strengthened these through creating documents that determined the ownership of the land and property. While this goal of securing rights on the international scene appears to level the playing field in terms of recognition, it deepens the division between Cypriots and leads to exclusion between the two people and reifies the categories, now with two states operating in the island that issue documents of property.

On the other hand, the ROC– even though not recognized by the Turkish state– is internationally considered the sovereign authority on the island, thus the documents of land registry belonging to Greek Cypriots were still the only documents recognized internationally. This plays into the "myth of return" created by both sides but

officially supported by the Greek Cypriot politicians (Gurel & Ozersay, 2006, p.360). While the allocation of the properties left behind from Turkish Cypriot refugees to Greek Cypriot refugees were similarly practiced, the Greek Cypriot rule of the ROC emphasized the temporariness of the situation. In this light, they did not issue new property documents and highlighted that the properties were still owned by Turkish Cypriots (Gurel & Ozersay, 2006). While the TRNC was slowly being solidified and claiming administrative authority over the northern side, the ROC imagined a future with a re-unified state that allowed Greek Cypriot refugees to go back to their homes (Kliot & Mansfeld, 1994). This idea of "being able to go back" however, paradoxically resulted in the permanence of the refugee status of Greek Cypriots, further emphasizing the "*myth* of return".

Navaro-Yashin (2007) explores this sentimental effect of government documents, showing how among Turkish Cypriots, British papers incite feelings of panic, fear and nervousness, whereas TRNC papers are met with nonchalance, irony, and indifference (Navaro-Yashin, 2007). These sentiments matter, as they relate to citizens' own agency regarding the state. For example, among Greek Cypriots, TRNC document papers and passports cause feelings of anger and frustration (Navaro-Yashin, 2007). This shows a divide between Turkish Cypriots and Greek Cypriots related to the perception of passports. Because the TRNC is not internationally recognized, any documents tied to the state are not just symbols of the state, but also vehicles for asserting its existence (Navaro-Yashin, 2007). While going back to their houses and "facing the Other" through the opening borders was an opportunity to confirm and deny the image of the Turkish Cypriot community created in the common consciousness of Greek Cypriots, some individuals actively protested "crossing as a tourist in their own country" giving reasons that point to the anger and sorrow of "[r]efugees hav[ing] to knock on their own front door and ask permission to enter their house" (Dikomitis, 2012, p.120). Greek Cypriots therefore refused to cross the border to the TRNC, even after it opened up, because they felt that by doing so and by showing their passports at the border, they would acknowledge and legitimate the existence of the TRNC as an independent state (Demetriou, 2019). So, through sentiments of belonging to a certain state, through the power and relation of passports to the state, individuals became the border itself. They became the border in the sense that it was now up to each Greek Cypriot individual to decide whether they saw the TRNC as legitimate. This meant that people who still saw the northern part of Cyprus as 'their land', were presented with a limited mobility and thus faced exclusion, for not wanting to show their passports.

The blurring of the notion of belonging points to a unique place in the concept of "imagined community" theorized by Anderson (2006a). As Greek Cypriots were now required to abide by a law of an unrecognized state to cross a legal boundary that they consider illegitimate, and to interact with Turkish Cypriots who once were considered the citizens of the same country and belonging together. While in contemporary times these imagined communities usually correspond to nations or nation-states (characterized by citizenship), the positioning of Cyprus inside this representation is not as clear-cut. The extent of imagination of individuals that once encompassed both Turkish Cypriots and Greek Cypriots, now does not go as far and gets limited at the language, nation, or boundaries characterized by passports. In this sense, the antagonism between the Turkish Cypriots and Greek Cypriots are fueled by the separation from the other side of the border.

The consequences of the division were also reflected spatially through the towns that the Green Line ran through; these cities offer views of the divide and the exclusion to the naked eye, if one has the right passport to get there. Varosha, once a heavily desired resort town on the island's Famagusta region, was abandoned following

the war in 1974, which left the town deserted for five decades (Pieri, 2025). This sealed beachfront district illustrates ways in which geopolitical divides are reproduced as everyday passport politics regarding physical space. Mobility documents are transformed into urban design tools that arrange who can exist and belong in said space (Pieri, 2025). Varosha was partially reopened in 2020; however, access has not been equally distributed. Instead, it became a "managed visitor experience" commodifying displacement and urban decay into an experience that sidesteps the politics that displace real people (Pieri, 2025, p.3). Pieri (2025) draws her analysis from Tripadvisor reviews and states that an overwhelming majority of visitors are not natives of the island; the corridor opens for external visitors and former residents face strict exclusionary measures.

This reflects the argument that the stateless are denied the "right to have rights" as it exemplifies presence without membership (Arendt, 1958, p.296). Former residents encounter the space as visitors with their presence authorized by day passes. Their intrinsic belonging to Varosha is denied by a political sense of belonging. The fence does not only immobilize buildings but directly classifies people who call the fenced-off town home as "outsiders". This exemplifies mobility as a sorting mechanism that rests its power on passports (Arendt, 1958). Tourists gain access through widely recognized passports while former residents are denied the same access.

On the Green Line, crossing points reopened in 2003, but returns to the town remained strictly surveilled, requiring day-visas, ID checks and compulsory insurance. These measures transformed once-homes into sites that grant access based on the political legitimacy of your papers (Dikomitis, 2012). Many experienced the process of returning to their place of residence as humiliating. The border regime functions with the understanding that papers precede people, meaning that belonging is time-bound and up to the interpretation of the state apparatus. In Varosha, rights of mobility and dwelling are granted by military force of the states along with the combined political governance of those same states and the United Nations (Arsoy & Başarır, 2019). This tight management results in a list of acts that are allowed or disallowed exemplifying the power of the state in deciding the publicness of Varosha. While strolling or photography may be allowed, deviating from the managed path, and repairing the site is forbidden. Citizenship still manifests from below the beaten path in Varosha. Displaced Greek Cypriots and Turkish Cypriots carved out space for life in the margins through building informal settlements and sustaining their community at the edge of the fence (Arsoy & Başarır, 2019).

A different story unfolds in Nicosia, with the Green Line drawn in 1974 going through the heart of the ancient city, turning once central streets into checkpoints where citizenship is enacted through passport politics (Petridou, 2003). Ledra/Lokmacı crossing is one of these crossings where the authorities grant or deny access; however, the repeated usage of these networks for varied functions leads to bottom-up citizenship producing a shared civic stage (Turner, 1990). Most essential is that these bottom-up actions also produce change at the state level, through the Bi-communal Nicosia Master Plan (Petridou, 2003). This plan coordinates sewage networks, street standards, and revitalization of the historic core showing how the imposed division fails to sustain itself as the citizens refuse to accept it. A shared understanding of heritage and action upon it by ordinary citizens results in steps towards re-unification in certain practices. Nicosia and Varosha both show how exclusionary practices are implemented through passports at checkpoints, while Nicosia exemplifies how arbitrary lines can become blurred as everyday practices circumvent them.

Ultimately, social and political exclusion on Cyprus is a lived experience by the Cypriots, which highly relates to their citizenship to either the ROC and/or TRNC, which is symbolized by the passports. This symbolic aspect

of passports, with its everyday consequences, compounded the division of the Cypriot people and led to social and political exclusion. We have illustrated this through narratives of local politics, sentimental effects of government documents, the reallocation of land deeds and houses, and the separation of Varosha and Nicosia. The individual reactions of people and the way citizens enacted their agency shows that the division of the Greek Cypriots and Turkish Cypriots is not just top-down, but is also rooted in painful history and large differences between the communities.

Conclusion

The 'Cyprus Problem' has been, and continues to be, an extensively complex situation, which teeters through the halls of politics, side-footing its way through concepts of sovereignty, citizenship, economic markets, language and more, with a quality of supreme incoordination.

Greek and Turkish forces have contested the state throughout the modern era and following the coup d'état from Greece and the subsequent intervention from Turkey in the 1970s, the UN has overseen the division of the north from the south via the Green Line. Since the imposition of this division, the EU has expanded and has claimed a stake within the negotiations towards a unified Cyprus. While both states have formal practices consistent with western statehood, there continues a division on the back of the imposition of transnational organizations, along with the unequal recognition of the new states (Christou, 2010).

The consequences of the top-down imposed division and unequal recognition resulted in multifaceted political and social exclusion. The two states which were once unified nationally, were now divided, and a process of othering occurred. This created a form of national division, which was reinforced by the alternative and pre-existent religious, linguistic, and cultural divide during the British colonial time (Potapkina, 2020). Within the national divide, the assigning of citizenship and passports assisted to signify the populations. Yet, the ROC passport was the preferred option for all Cypriots due to it increasing sociospatial mobility for its holders. This further undermined the political legitimacy of the TRNC. Moreover, the TRNC experienced limited integration into the European economic sphere, and this perpetuated the spatial divide, embedding the division into the economy and further, the people.

The more interpersonal, bottom-up effects of this division can be seen in the cases of Varosha and Nicosia. These show that the division on the island is founded on religious, linguistic, and ethnic differences, apart from being imposed by global actors. The division relegated many communities to being refugees within their own country, having to flee their homes to the side where they were represented. (Dikomitis, 2012). Afterwards, passports were used as tools to organize urban space, modifying who can exist where, undermining the established places of belonging for Cypriot communities (Pieri, 2025). The result of this displacement and the policing of space led to situations where communities had to confront "the Other". And residents who returned to their old homes revealed the sentiment of being a tourist in their own country. Today, Cyprus remains divided despite multiple reunification efforts, as socioeconomic, spatial, and cultural divisions persist.

Limitations and Futures

The process of writing this paper was influenced by the educational backgrounds of each author, leading to an analysis which discusses multiple aspects. However, focusing on fewer or one aspect could potentially improve the analytical clarity or depth of certain complexities present in Cyprus. Future efforts to discuss and build upon this paper could focus on the dimension of Cyprus as a territory, specifically the significance of its geographical position within the current geopolitical landscape and how that influences the operation of both governing bodies in Cyprus. In addition, while this paper discusses the presence of the British military bases, the political implications of it could be researched further. Conducting a survey or series of interviews in the future which contrast the lived experiences of both Greek Cypriots and Turkish Cypriots would develop nuance and richness in the understanding of current and historical political conflicts. Lastly, this paper aims to present the history and dynamics at the time of writing, and we recognize that some of the analysis may be outdated at the time of publishing as the politics of Cyprus are continuously changing.

Conflict of Interests

The authors declare no conflict of interest.

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Effect of Women's Empowerment on Child Nutrititional Status in Selected Sub-Saharan African Countries

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Abstract

This research examines how women's empowerment influences child nutritional outcomes in selected Sub-Saharan African countries. Drawing on nationally representative Demographic and Health Survey (DHS) data from Ghana, Kenya, Burkina Faso, and Tanzania, the study applies a probit model to estimate the direct effect of empowerment on child nutritional outcomes. It uses the Alkire-Foster methodology to conceptualise the measurement of women's empowerment. Five domains of empowerment are employed to create a multidimensional empowerment index. The results demonstrate a consistent positive association: empowered women significantly increase the likelihood of children not being stunted, wasted, and underweight by approximately 3.0, 2.3, and 1.1 percentage points, respectively. This indicates that the empowered mothers are more likely to influence the nutritional status of their children. The study concludes that women's empowerment plays a crucial role in combating child malnutrition in the Sub-Saharan region. For policy recommendations, the study recommends that nutrition-sensitive policies must be intrinsically linked to women's empowerment initiatives, specifically targeting the enhancement of women's agency over household food resources and nutritional knowledge to achieve sustainable improvements in child health outcomes.

Keywords

Women's Empowerment, Child Nutritional Status, Alkire-Foster Methodology, Kabeer's Empowerment Theory

Introduction

Child malnutrition continues to constrain human development outcomes across Sub-Saharan Africa, particularly among children aged five, with long-term consequences for health, education, and productivity (AfDB, 2023). Recent estimates indicate that nearly one-third of children in this age category experience stunting or wasting, signalling both long-term nutritional deprivation and short-term dietary shocks (UNICEF, 2021). Beyond its immediate health consequences, malnutrition undermines the mental development of children, educational progress, and long-term economic participation. Children who experience undernutrition in early life face a higher risk of

chronic illness and reduced learning capacity in many years to come (Black et al., 2013). Child malnutrition remains widespread due to intertwined structural and social drivers: economic hardship, inadequate food and healthcare, deficient water and sanitation, and cultural practices that shape how children are cared for and fed.

Recent assessments by the African Development Bank Group highlight that persistent inequality, violent conflict, and accelerating climate-related shocks are key contributors to widespread child food deprivation across Sub-Saharan Africa (AfDB, 2023). The greatest burden falls on women and children, where these pressures deepen food insecurity and restrict consistent access to adequate diets. Disparities in wages, learning opportunities, and productive assets autonomy significantly limit the capabilities of women to ensure proper nutrition and access to health services for their children, as long-standing structural barriers limit their economic engagement and influence in household decisions. (AfDB, 2023). In addition, basic amenities, including education and health care, are severely disrupted due to conflict and political instability, displacing populations and damaging infrastructure. In such settings, acute malnutrition rises sharply as humanitarian responses are constrained by limited resources and the collapse of traditional coping strategies due to overreliance (FAO, 2022). Climate-related stresses further intensify these challenges, undermining agricultural production and food availability, especially in rural communities that depend solely on subsistence farming and have limited adaptive capacity (AfDB, 2023).

The interaction of these economic, social, and environmental forces perpetuates chronic child food poverty, leaving many children without sufficient nutrients to support healthy growth and development. Consequently, high levels of stunting, wasting, and micronutrient deficiencies persist across the region, with lasting effects on cognitive development, educational outcomes, and productivity in later life (UNICEF, 2023). Addressing child malnutrition under these conditions, therefore, demands integrated, multi-sectoral strategies that extend beyond food distribution to confront underlying inequalities and environmental risks, while strengthening the roles women play in household food security, caregiving, and health-related decision-making.

The study draws on Kabeer's view of empowerment, which emphasises expanding women's will to decide on significant life choices in cases where such options were initially denied. Within this framework, empowerment is seen as a multidimensional process involving agency, resource access, and outcomes (Kabeer, 2005). Over time, scholarly understanding of empowerment has evolved from a narrow focus on individual attributes to a broader, relational perspective that acknowledges the interaction of multiple domains. While debates persist regarding how empowerment should be assessed and which indicators align with specific outcomes, there is broad agreement that empowerment is inherently complex and context-dependent, particularly in relation to child nutrition (Novignon et al., 2019).

Empirical research highlights the strong association between women's empowerment and improvements in child nutrition. Studies such as those by (Essilfie et al., 2021; Yaya et al., 2020) reveal that women who possess greater autonomy are better positioned to make informed health-related choices, allocate household resources more effectively, and engage with healthcare services in ways that enhance child wellbeing. With all the available insights, much of the existing literature depends solely on relatively narrow indicators of empowerment, commonly education, employment, or participation in household decision-making. While these proxies provide useful information, they capture only selected dimensions of empowerment and fail to account for its broader and interconnected dimensions, including economic, social, psychological, legal, and health-related aspects (Malapit & Quisumbing, 2015).

This study's primary goal is to investigate the effect of women's empowerment on child nutritional status in selected Sub-Saharan African countries using a multidimensional approach to measure women's empowerment, recognising that its various domains may interact in distinct ways to shape child nutritional outcomes. The inclusion of diverse indicators such as agency, access to resources, income, leadership, and workload strengthens the analytical framework and responds to growing calls for context-sensitive and comprehensive approaches within gender and development research (Essilfie et al., 2021). This approach enables a more detailed understanding of how different dimensions of empowerment operate within specific socio-cultural contexts, thereby offering clearer guidance for policy and programme design.

For policy implications, this study provides insights that inform the design of nutrition-sensitive agricultural programs and social protection policies that place women's empowerment at the core, rather than treating it as a peripheral outcome. By producing evidence that is specific to the Sub-Saharan African context, the study adds to ongoing scholarly and policy discussions on gender-transformative approaches to enhancing child health and nutrition. In doing so, it also aligns with broader international development priorities, particularly the Sustainable Development Goals, Goal 2 on eliminating hunger, Goal 3 on ensuring health and wellbeing, and Goal 5 on advancing gender equality (Sorooshian, 2024).

Theoretical/Empirical Framework

Numerous studies and organisations have given differing perspectives on the concept of women's empowerment. Early policy approaches, such as those outlined by UNPN (1995), defined empowerment as the unrestricted participation of women in social and economic systems. Expanding this perspective, Kabeer (2005) conceptualises empowerment as an evolving process through which women progressively gain the ability to make significant choices in contexts where such agency was previously limited. At the core of this framework lies the interaction of three key dimensions: agency, resources and achievements.

Discussions of the concept are closely linked to feminist theory, focusing on equal political, economic, and social rights for women and men. Feminist thought has evolved through diverse strands that offer distinct explanations for gender inequality. Liberal feminism focuses on achieving equality through legal reform and institutional change, while radical feminism attributes women's oppression to patriarchal power structures and calls for fundamental social transformation. Socialist feminism highlights the intersection of capitalism and patriarchy in sustaining gender inequality, emphasising collective struggles for both economic and gender justice. Multicultural feminism, by contrast, challenges universal representations of women's experiences, drawing attention to the ways race, class, and culture shape empowerment processes (Turner & Maschi, 2015). These perspectives complement Kabeer's multidimensional understanding of empowerment as a process shaped by structural and relational factors.

Longwe (1991), on the other hand, defines empowerment as a progressive and transformative journey in which women enhance their capacity to influence their own lives and actively participate in development. Instead of treating empowerment as a fixed outcome, the framework portrays it as advancement across interconnected stages that signify growing gender equality and shifts in power relations.

The Logwe's framework adds analytical depth to the discussions of women's empowerment by complementing both feminist theories and Kabeer's multidimensional conceptualisation of empowerment. While Kabeer's

definition centres on the process through which women gain the ability to make meaningful decisions through the interaction of agency, resources and achievements, Longwe provides a more practical and progressive framework for understanding how empowerment unfolds within development contexts. The framework identifies stages of empowerment: welfare, access, conscientisation, participation and control, through which women move from passive beneficiaries to active decision-makers. This approach aligns with liberal feminism's emphasis on equal participation and institutional inclusion, radical feminism's focus on challenging patriarchal power structures, socialist feminism's concern with structural and economic inequalities, and multicultural feminism's recognition of the diverse and context-specific experiences of women.

The inclusion of Longwe's framework is particularly valuable because it translates broader feminist debates into measurable dimensions that can be applied to empirical research and development practice. Although these conceptualisations share a common concern with gender equality, they differ in emphasis: Kabeer focuses on agency and choice, Longwe emphasises progressive shifts in power relations, while feminist theories provide broader structural explanations for women's oppression and inequality. Rather than privileging a single perspective, integrating these frameworks allows for a more holistic understanding of empowerment that captures both individual agency and structural transformation. Such a combined approach is relevant in studies of women's participation, development, governance and peacebuilding where empowerment involves not only improving women's access to opportunities but also transforming the social and institutional systems that constrain their participation and decision-making power.

Here are some relevant empirical reviews:

The literature on the theoretical framework and conceptualisation of women's empowerment highlights two key themes. First, efforts to define empowerment as a multidimensional concept and to identify its domains have raised persistent measurement challenges. These challenges remain topical, as definitions and indicators of empowerment vary considerably across authors and are often shaped by differing social and contextual settings. Secondly, the studies reviewed demonstrate a consistent association between women's empowerment and child nutritional outcomes across diverse geographical and socio-economic contexts. Studies from Sub-Saharan Africa and South Asia converge on the finding that children of more empowered women are less likely to experience stunting, wasting, underweight, anaemia, and inadequate dietary diversity. The direction of these relationships varies depending on how empowerment is conceptualised and measured, as well as the contextual factors shaping household and community environments. Evidence suggests that empowerment domains related to decision-making autonomy, social independence, education, and asset ownership are more strongly and consistently linked to improved child nutrition than aggregate or purely economic measures of empowerment (Paudel & Adhikari 2025; Abdulai et al. 2024; Aboagye et al. 2024; Essilfie et al. 2024; Nikiema & Kponou 2024; Singh & Jha 2024; Wassie et al. 2024; Chatterjee and Dubey 2023; Christian et al. 2023; Folayan et al. 2023; Sindhuja & Venkata, 2023; Sey-Sawo et al., 2023). The study, therefore, hypothesises that children of empowered women are more likely to attain better nutritional outcomes. In addition, the research advances existing academic debate by adopting a composite index of women's empowerment instead of relying on single indicators. This multidimensional framework enables the examination of both the direct and indirect effects of women's empowerment, which may enhance household food security, strengthen caregiving practices, and improve engagement with health services. As such, the study offers a more comprehensive understanding of how different dimensions of empowerment function within diverse

socio-cultural settings.offers a more comprehensive understanding of how different dimensions of empowerment function within diverse socio-cultural settings.

Methodology/Research Design

The study's objective is to explore the effect of women's empowerment on child nutritional status in selected Sub-Saharan African countries. The study, therefore, extends our understanding of the dimension of empowerment and child nutritional status and how the concepts will be approached.

Data for the analysis come from the Demographic and Health Surveys dataset conducted in Ghana, Kenya, Tanzania, and Burkina Faso, covering mothers or female caregivers aged 15–49 and children aged 6–59 months (GSS & ICF, 2024; KNBS & ICF, 2023; NBS & ICF, 2023; INSD & ICF, 2023). This dataset was started in 1984 by the United States Agency for International Development. The pooled sample size for the four countries is 80,083 mother-child pairs. After applying the selection criteria, which require mothers to have living children below the age of five and valid responses for empowerment and nutrition variables, the study sample decreased by 47,266 mother-child pairs. This dataset was used because DHS surveys deliver nationally representative insights into household and individual characteristics central which is to the research objective.

The four countries were selected and used because they reflect the availability of recent surveys capturing all relevant variables. Data from the 2021 and 2022 DHS rounds offered complete and comparable measures, supporting consistent evaluation of women's empowerment and child nutrition.

Description and Measurement of Variables

Alkire-Foster Methodology for the Construction of Women's Empowerment Index

Estimation Procedure One

Empowerment is conceptualised as a multidimensional construct, recognising that an individual can experience empowerment in some indicators or domains while simultaneously experiencing disempowerment in others. The study employs five domains and fifteen indicators, which are collapsed into eleven indicators for the estimation procedure, as presented in Table 1. These five domains and corresponding indicators collectively form the study's conceptualisation of empowerment. The conceptualisation of the Women's Empowerment Index (WEI) applies the dual cut-off method proposed by Alkire & Foster (2011), which enables the identification of individuals as either empowered or disempowered. Although originally developed to measure multidimensional poverty, the method was later adapted in 2008 to allow its application to other phenomena Alkire & Santos, (2013). The Alkire–Foster approach provides researchers with considerable flexibility in determining key parameters and making analytical decisions. The methodology allows for choices regarding its purpose, analytical space, unit of analysis, dimensions, deprivation thresholds, weighting of indicators, and the overall poverty cut-off. Such adaptability makes it suitable for a wide range of applications. The methodology is adapted for the study because it allows for the inclusion and construction of an empowerment index where all relevant empowerment domains are captured.

Using the Alkire-Foster approach, equal weights are applied across the five domains that form the basis of the index and its indicators. Each woman receives a weighted deprivation score derived from her assigned deprivations. A score above 0.33 classifies her as poor, with overall deprivation values ranging between 0 and 1. The multidimensional index is calculated by combining two components: the headcount ratio (H), which reflects the proportion of women identified as disempowered under the dual cut-off method, and the intensity of disempowerment (A), which captures the average level of deprivation among those affected.

Table 1: Description and Measurement of Variables

Variables	Description/Measurement	Expected Outcome
Child Nutritional Status	Child Non-Stunting Child Non-Wasting Child Non-Underweight	
WEI	Women Empowerment Index will be created using the Alkire foster methodology	+
Age	Age of the woman in years	+
Marital Status	Marital Status of the woman	+
Education of the Woman	Educational level of the woman	+
Occupation of the Woman	Work of the woman	+/
Religion	Religion of the woman	+/-
Residence	Location of the woman	-
Health Status	Quality of health of the woman	+
Access to Information	Means of getting information	+
Health Access	Proximity of formal healthcare services	+
Age of the Child	Age of the child	+
Sex of the Child	Sex of the child	+
Minimum Dietary Diversity of the child	Quality of complementary feeding for young children	+
Household Size	Number of people living in the household	-
Sex of Household Head	Sex of household head	+
Partner's Education	Level of education of partner	+
Toilet Facility	Toilet facility used in the household	+
Water Source	Source of water used in the household	+

Table 2: Domains and Indicators for the Construction of the Women's Empowerment Index

Domains	Indicators
Agency	Decision to visit the community health facility
	Decision on large household purchases
	Perception of violence
Resources	Rate of literacy
	Number of visits for prenatal care
Income	Works for oneself or for someone
	Decision on spending earnings
Leadership	Ownership of the house
	Discuss family planning with the FP worker
Workload	Fuel type used for cooking
	Time used to fetch water for the home

$$H = \frac{\rho}{n} \quad (1)$$

The degree of disempowerment can also be quantified. It reflects the common dimensions of deprivation experienced by women and is expressed as the average weighted number of deprivations among those identified as multidimensionally disempowered. Formally, this can be represented as:

$$A = \frac{\sum_1^{\rho} C}{\rho} \quad (2)$$

C represents the overall weighted deprivation faced by a disempowered woman. The Women's Empowerment Index (WEI) is calculated by multiplying the headcount ratio of disempowered individuals by the average intensity of their deprivations, a measure commonly referred to as the adjusted headcount ratio.

$$M = HA \quad (3)$$

The adjusted ratio meets the criterion of dimensional monotonicity, since the value of A rises whenever a woman experiences deprivation in an additional domain. In line with Alkire et al. (2012), the Women's Empowerment Index (WEI) is calculated as follows:

$$5DE = H_{\mathrm{e}} + H_{\mathrm{p}}A_{\mathrm{e}} \quad (4)$$

Where H_{e} is the percentage (%) of empowered women.

H_{p} is the percentage (%) of women disempowered.

A_{e} is the mean absolute score of empowered women among those disempowered.

Therefore, equation (4) can be stated as

$$5PE = 1 - M_{\mathrm{o}} \quad (5)$$

We can then compute the contribution of the indicators to WEI as

$$Contribution\ of\ indictors\ to\ WEI = \frac{w_i CH_i}{WEI} \times 100 \quad (6)$$

Where w_i is the weight of the indicator, and CH_i is the censored headcount ratio of the ith indicator.

Estimation Procedure Two

The probit model is employed in analysing the effect of women's empowerment on child nutritional status. For a cross-sectional analysis with a binary outcome, the probit model is a well-established, efficient estimator when its core assumptions are met. Its results are easily interpretable through marginal effects, which show the change in the likelihood of the outcome for a one-unit change in a predictor, evaluated at the mean of all other variables (or averaged over the sample).

To specify the model, let the structural equation (second-stage) be:

$$Child\ Nutritional\ Status_i = \beta_o + \beta_1 Women's\ empowerment + X'_i\beta + \mu_i \quad (7)$$

$Child\ Nutritional\ status_i$: Represents the likelihood of a child having adequate nutritional status (e.g., not stunted, not wasted).

Therefore, the binary outcome $Child\ Nutritional\ Status = 1\ [Child\ Nutritional\ Status \geq -2]$ which equals 1 if the child is well-nourished and 0 otherwise.

$X'_i\ is\ the\ independent\ variables$

Result and Discussion

To construct the five empowerment domains, fifteen indicators were used, as detailed in Table 2. Kenya stood out with the largest share of responses across most indicators. In the agency domain, results from three countries, excluding Burkina Faso, suggest that household decisions are largely controlled by husbands, leaving women with limited independence. When asked about violence, most women disapproved of being beaten, yet some still considered it acceptable in particular situations. About the income domain, women generally have the freedom to work for themselves and decide how to use their income. Regarding house ownership, most women do not claim ownership; the majority indicate that their spouses own the house. This aligns with the theory regarding the non-ownership of land and homes by women in Sub-Saharan Africa. This could be due to cultural and social factors in these geographical areas. The results indicate that most women prefer not discussing family planning with healthcare providers. Again, this aligns with the theory where women in Sub-Saharan Africa majorly depend on their partner or household member to make decisions about their healthcare. Additionally, the majority of women do not have the confidence to discuss issues of their reproductive health with a family planning worker, primarily because of their beliefs and social factors. In the resource domain, responses are rotating between cannot read at all and can read. Kenya records the highest proportion of women who are unable to read, while Burkina Faso has the largest share of women who cannot read completely. All four countries have women who have never attended prenatal visits. Within the workload domain, findings show that many respondents spend over 30 minutes travelling to reach water sources. Most women in Kenya rely on charcoal as their main cooking fuel, whereas a larger proportion of women in Burkina Faso use gas or electricity. The disparity in cooking fuel use between Kenya and Burkina Faso may reflect broader differences in women's access to household resources and living conditions.

Access to cleaner cooking fuels such as gas and electricity is often linked to improved socio-economic welfare and women's empowerment, as it reduces domestic labour burdens and exposure to indoor air pollution. These conditions may indirectly enhance child nutritional outcomes by improving caregiving time, food preparation practices and household environments.

Table 3: Country distributions of the indicators used in the Women's Empowerment Index

Domain/Indicators	**Burkina Faso**	**Proportion (%)**	**Ghana**	**Proportion (%)**	**Kenya**	**Proportion (%)**	**Tanzania**	**Proportion (%)**
Agency								
Decision on respondent healthcare								
Joint/Alone	3,193	30.5	5,337	70.4	11,815	80.3	5,925	72.9
Partner Alone	7,274	69.5	2,245	29.6	2,903	19.7	2,205	27.1
Decision on large household Purchases								
Joint/Alone	1,986	19	4,611	60.8	10,733	72.9	4,929	60.6
Partner Alone	8,481	81	2,971	39.2	3,985	27.1	3,201	39.4
Beating is accepted if the wife leaves home without informing the husband								
No	7,663	69.8	7,411	84.4	14,152	79.6	6,582	67.6
Yes	3,310	30.2	1,369	15.6	3,626	20.4	3,153	32.4
Beating is accepted if the wife neglects the children								
No	7,704	70.2	7,148	81.4	12,351	69.5	6,062	62.3
Yes	3,269	29.8	1,632	18.6	5,427	30.5	3,673	37.7
Beating is accepted if the wife argues with the husband								
No	6,874	62.6	7,390	84.2	13,404	75.4	6,406	65.8
Yes	4,099	37.4	1,390	15.8	4,374	24.6	3,329	34.2
Beating is accepted if the wife declines to have sex with the husband								
No	8,082	73.7	7,755	88.3	14,076	79.2	7,287	74.9
Yes	2,891	26.3	1,025	11.7	3,702	20.8	2,448	25.1
Beating is accepted if the wife burns food								
No	9,667	88.1	8,255	94	15,944	89.7	8,548	12.2
Yes	1,306	11.9	525	6	1,834	10.3	1,187	44.5
Income/Assets								
Respondent works for themselves or someone else								
Self	3,613	49.7	4,871	66	4,945	54	2,898	44.5
Someone else	3,661	50.3	2,506	34	4,219	46	3,611	55.5
Decision to spend the respondent's earnings								
Joint/Alone	2,457	87.8	4,496	92.5	5,323	94.9	2,931	90.3
Partner Alone	340	12.2	363	7.5	286	5.1	315	9.7

Leadership								
Ownership of House								
Joint/Alone	2,196	20	1,633	18.6	7,694	43.3	4,152	9.7
Does not own	8,777	80	7,147	81.4	10,084	56.7	5,583	42.7
Discuss family planning								
Discussed	3,767	46.3	3,587	51.5	3,529	48.9	3,531	5.3
Not discussed	4,377	53.7	3,379	48.5	3,688	51.1	4,358	44.8
Resources								
Literacy								
Can least read/write	2,956	26.9	3,824	43.6	12,941	72.8	7,310	75.1
Can't read at all	8,017	73.1	4,956	56.4	4,837	27.2	2,425	24.9
Prenatal Visits								
Visited	2,763	25.2	2,554	29.1	5,371	30.2	2,786	28.6
Never Visited	8,210	74.8	6,226	70.9	12,407	69.8	6,949	71.4
Time/Work-load								
Time to reach water								
Less than 30 minutes	4,666	42.5	1,742	19.8	6,094	34.3	2,440	25.1
More than 30 minutes	6,307	57.5	7,038	80.2	11,684	65.7	7,295	74.9
Type of cooking fuel								
Gas/electricity	9,925	90.4	7,575	86.3	65	0.4	9,169	94.2
Charcoal	1,048	9.6	1,205	13.7	17,713	99.6	566	5.8

Table 3 shows how empowerment is distributed across different variables. It reveals that in Ghana, Burkina Faso, Kenya and Tanzania, women within the 20-24 to 45-49 age brackets are disempowered. The result is somewhat counterintuitive, given that women within such an age group are usually regarded as greatly empowered, reflecting higher educational levels and broader social exposure linked with maturity. Again, in all three stages of education (primary, secondary and higher), the majority of women are still disempowered as compared to women who have had no experience of formal education. This suggests that education alone does not constitute a sufficient condition for empowerment; rather, other critical factors, such as agency, access to resources, ownership, and leadership, must also contribute to women achieving greater empowerment. The findings further indicate that the majority of unmarried women are disempowered, which could be due to the absence of a partner, which is accompanied by being unmarried. Married women tend to receive both emotional and financial support, which contributes to their empowerment status. Across all wealth groups, from the poorest to the richest, many women remain disempowered. This shows that household wealth alone does not guarantee empowerment.

Limited access to safe water and sanitation also contributes to disempowerment, highlighting the importance of these basic resources in strengthening women's agency.

Table 4: Distribution of Empowerment between Socioeconomic Factors

Variable	Disempowered	Empowered	Total	Proportion (%)
Women's Age Range				
15-19	45	11	56	1.6
20-24	337	140	477	13.9
25-29	642	308	950	27.6
30-34	700	269	969	28.1
35-39	486	214	700	20.3
40-44	142	101	243	7.1
45-49	39	1	48	1.4
Women's Educational Level				
No education	711	175	886	25.7
Primary	382	291	673	19.5
Secondary	653	410	1,063	30.9
Higher	645	176	821	23.8
Marital Status of the Woman				
Married	479	214	693	20.1
Unmarried	1,912	838	2,750	79.9
Wealth Status of the Woman				
Poorest	247	109	356	10.3
Poorer	273	119	392	11.4
Middle	358	230	588	17.1
Richer	560	270	830	24.1
Richest	953	324	1,277	37.1
Water Source				
Unimproved Water	561	237	798	23.2
Improved Water	1,830	815	2,645	76.8
Toilet Facility				
Unimproved Toilet	584	266	850	25
Improved Toilet	1,792	759	2,551	75
Woman's Occupation				
Services	929	355	1,284	37.4
Manual Work	85	26	111	3.2
Agriculture	1,371	671	2,042	59.4

Effect of Women's Empowerment on Child Nutritional Status

As presented in Table 5, women's empowerment is strongly linked to better child nutrition. Across measures of stunting, wasting, and underweight, the relationship is consistently positive. Children of empowered women are 9.9 percentage points less likely to be stunted, 2.3 percentage points less likely to be wasted, and 1.1 percentage points less likely to be underweight.

Across the three measures, results suggest that women's empowerment is marginally associated with non-stunting and non-underweight, with a stronger, significant relationship observed for non-wasting. This suggests that empowered women play a role in mitigating both long-term nutritional deficits and short-term shocks that affect their children's health. This aligns strongly with theoretical frameworks, such as the household bargaining model, which posits that empowered women allocate resources more favourably toward child welfare (Doss, 2013). These findings corroborate those of Sindhuja and Venkata (2023) and Salawu et al. (2022), who identified women's empowerment status as a key driver of nutritional improvement.

The results indicate that female children have a significantly higher probability of achieving satisfactory nutritional status across all three indicators compared to male children: non-stunting (4.7 percentage points), non-wasting (1.1 percentage points), and non-underweight (2.8 percentage points). This pattern suggests that male children are prone to infections and diseases compared to their female counterparts. This finding is consistent with Essilfie (2024), who reported that female children experience lower rates of wasting than their male counterparts. Furthermore, the analysis reveals that the probability of not being stunted increases significantly with age, rising by approximately 5 percentage points as a child grows older. This is expected for stunting, as it is a cumulative, chronic condition, and its HAZ scores are relative to age, and this may reflect recovery or catch-up growth in some children as they age.

Compared with unmarried women (including those who have never married, as well as widowed, divorced, or separated women), being married is associated with a statistically significant increase in the likelihood of a child attaining satisfactory nutritional status, that is, not being stunted, wasted, or underweight. This finding is consistent with several theoretical frameworks and may be explained through a combination of socioeconomic, psychosocial, and practical mechanisms (Singh & Jha, 2024). In particular, two-adult households generally benefit from higher and more stable aggregate income compared with single-parent households, especially in settings where women's opportunities for independent income generation are constrained. This greater economic capacity facilitates consistent access to sufficient quantities of diverse, nutritious foods, quality healthcare, and improved sanitation facilities, all critical determinants of child nutrition. Married couples are better equipped to withstand economic or agricultural shocks (e.g., drought, job loss, illness). The ability to pool risks and resources provides a buffer that can protect children from acute periods of food insecurity that lead to wasting and underweight. A spouse can share the immense physical and time burdens of childcare. This allows the mother more time for dedicated child feeding, food preparation, and seeking healthcare when the child is sick. In single-mother households, the mother may be forced to trade off childcare for income-generating activities, potentially to the detriment of the child's care. Marriage can provide emotional support, reducing maternal stress. A less stressed mother may be more psychologically available to provide responsive feeding and care. Furthermore, having a partner to consult can lead to more informed and timely decisions regarding a child's health and diet.

Essilfie et al. (2024) and Salawu et al. (2022) report that maternal education improves child nutrition outcomes, particularly increasing non- wasting and non-underweight. The present study confirms this pattern: primary, secondary, and higher education raise the probability of children avoiding wasting by 2.6, 3.7, and 3.5 percentage points, and underweight by 2, 2.6, and 3.2 percentage points, respectively, compared with mothers lacking formal schooling. In contrast, maternal education shows a negative association with non-stunting, with probabilities declining by 3, 2.4, and 1.3 percentage points across the three education levels. These findings confirm that education serves as a powerful tool for improving child nutrition, likely through enhanced knowledge, improved childcare practices, and higher socioeconomic status. The influence of education on child non-stunting may stem from the growing responsibilities parents and guardians assume as they advance educationally. As these responsibilities increase, they tend to consume more of their time. Consequently, parents and guardians may have limited time to engage with their children and monitor their health, potentially exposing the children to various health risks. Household wealth is positively associated with child nutrition, especially non-wasting and non-underweight. Children from middle, richer, and richest households are 1.3, 4.1, and 2.6 percentage points more likely to avoid wasting, and also show higher probabilities of not being underweight by 4.5, 7.0, and 5.5 percentage points, respectively, compared with those from the poorest households. This finding aligns with expectations, as greater household wealth enhances access to higher-quality food and healthcare services. Results corroborate Essilfie et al. (2024) who found that household wealth improves child healthcare provision. Rural residence is negatively associated with child nutrition, lowering probabilities of non-stunting, non-wasting, and non-underweight by 3.5, 1.6, and 12.2 percentage points, respectively. These outcomes likely reflect structural disadvantages such as poor healthcare access, reduced income, sanitation challenges, and limited dietary diversity. Additionally, household size is inversely related to children's likelihood of avoiding wasting and underweight; specifically, each additional household member decreases this probability by approximately 0.5 percentage points. This finding supports the "resource dilution" theory, which suggests that as the number of household members grows, limited food and resources are spread more thinly, disproportionately affecting the nutritional well-being of young children. Conversely, adequate dietary diversity significantly improves child nutrition outcomes, increasing the likelihood of not being stunted, wasted, and underweight by 0.1, 0.2, and 0.4 percentage points, respectively. This highlights the importance of a varied diet in meeting children's nutritional needs and promoting healthy growth.

Water source and access to information shows a positive relationship with child non-wasting and non-underweight for the source of water of the household and non-stunting and non-wasting for access to information. This indicates that when the household has access to improved source of drinking water and information then the likelihood of the child being stunted, wasted and underweight reduces.

Improved maternal access to healthcare enhances child nutritional outcomes, such as child non-stunting, non-wasting and non-underweight. Children of mothers with better access to healthcare services have a 2.3 percentage point higher likelihood of not being wasted. This highlights the importance of timely medical care in preventing or treating infections that contribute to acute malnutrition.

The table presents results on the model classification test for the probit model. The results show that the model's predictions matched the true labels for 91.56%, 94.97% and 93.79% for all cases for non-stunting, non-wasting and non-underweight.

Table 5: Probit Model on the Effect of Women's Empowerment on Child Nutritional Status in Selected Sub-Saharan African Countries

Variables	Non-Stunting		Non-Wasting		Non-Underweight	
	Coefficients	ME	Coefficients	ME	Coefficients	ME
Women's Empow-	0.250*	0.099*	0.284**	0.023**	0.111*	0.011*
erment	(0.008)	(0.003)	(0.114)	(0.009)	(0.097)	(0.010)
Age of the Woman (ref:15-19)						
20-24	-0.843**	-0.079***	0.039*	0.003*	-0.066	-0.006
	(0.433)	(0.022)	(0.317)	(0.025)	(0.315)	(0.028)
25-29	-0.660*	-0.052***	0.062*	0.004*	-0.020	-0.001
	(0.431)	(0.019)	(0.309)	(0.024)	(0.308)	(0.027)
30-34	-0.620*	-0.047***	-0.012*	0.001*	-0.148	-0.014
	(0.432)	(0.019)	(0.319)	(0.025)	(0.309)	(0.027)
35-39	-0.766*	-0.067***	0.061*	0.004	-0.091	-0.008
	(0.434)	(0.021)	(0.317)	(0.025)	(0.315)	(0.028)
40-44	-0.965**	-0.102***	-0.443*	-0.052*	-0.544*	-0.074**
	(0.446)	(0.031)	(0.334)	(0.034)	(0.329)	(0.037)
45-49	-0.524***	-0.063*	0.784*	-0.121*	-0.253	-0.027
	(0.179)	(0.025)	(0.457)	(0.087)	(0.495)	(0.058)
Marital Status (ref: Unmarried)						
Married	0.048*	0.006*	0.321***	0.031***	0.234**	0.027**
	(0.093)	(0.013)	(0.104)	(0.011)	(0.098)	(0.012)
Education of the Woman (ref: No education)						
Primary	-0.028*	-0.003*	0.258*	0.026*	0.168*	0.020*
	(0.122)	(0.015)	(0.140)	(0.014)	(0.130)	(0.015)
Secondary	-0.178*	-0.024*	0.403***	0.037***	0.227*	0.026*
	(0.115)	(0.015)	(0.135)	(0.013)	(0.124)	(0.015)
Higher	-0.101*	-0.013*	0.374**	0.035**	0.287**	0.032*
	(0.134)	(0.017)	(0.155)	(0.014)	(0.146)	(0.016)
Wealth of the Household (ref: Poorest)						
Poorer	0.033	0.004	0.083*	0.009*	0.158	0.025
	(0.152)	(0.022)	(0.173)	(0.020)	(0.155)	(0.025)
Middle	0.111	0.015	0.123*	0.013*	0.316**	0.045*
	(0.153)	(0.022)	(0.175)	(0.020)	(0.160)	(0.026)
Richer	-0.077	-0.012	0.503**	0.041**	0.578***	0.070**
	(0.161)	(0.024)	(0.205)	(0.020)	(0.183)	(0.027)

Richest	0.124	0.017	0.263*	0.026*	0.411**	0.055*
	(0.180)	(0.025)	(0.211)	(0.023)	(0.193)	(0.029)
Sex of Child (ref: Male)						
Female	0.337***	0.047***	0.142*	0.011*	0.265***	0.028***
	(0.077)	(0.010)	(0.091)	(0.007)	(0.085)	(0.008)
Residence(ref: Urban)						
Rural	-0.255***	-0.035***	-0.204*	-0.016*	-0.018*	-0.122***
	(0.093)	(0.013)	(0.120)	(0.009)	(0.108)	(0.040)
Age of Child	0.359***	0.050***	-0.076	-0.006	-0.018	-0.001
	(0.088)	(0.012)	(0.101)	(0.008)	(0.092)	(0.009)
Dietary Diversity of the Child	0.008*	0.001*	0.031*	0.002*	0.046*	0.004*
	(0.024)	(0.003)	(0.028)	(0.002)	(0.026)	(0.002)
Household Size	0.005	0.000	-0.067***	-0.005***	-0.049***	-0.005***
	(0.011)	(0.001)	(0.019)	(0.001)	(0.016)	(0.001)
Water Source(ref: Unimproved)						
Improved	0.008	0.001	0.080*	0.006*	0.109*	0.012*
	(0.094)	(0.013)	(0.111)	(0.009)	(0.101)	(0.011)
Toilet Facility(ref: Unimproved)						
Improved	0.060	0.008	-0.007	-0.000	-0.032	-0.003
	(0.107)	(0.015)	(0.129)	(0.010)	(0.119)	(0.012)
Access to Information	0.227**	0.031**	0.129*	0.010*	0.102	0.010
	(0.117)	(0.016)	(0.149)	(0.012)	(0.135)	(0.014)
Health Status	-0.019	-0.002	-0.009	-0.000	-0.022	-0.0024
	(0.052)	(0.007)	(0.065)	(0.005)	(0.058)	(0.006)
Healthcare Access	0.104	0.014	0.282**	0.023**	0.116	0.012
	(0.100)	(0.013)	(0.109)	(0.008)	(0.103)	(0.010)
Constant	2.18***		0.022**		0.546*	
	(0.513)		(0.458)		(0.430)	
LR chi2(25)	82.66***		86.06***		71.76***	
Correctly Classified	91.56%		94.97%		93.79%	
Observations	2,463	2,463	2,463	2,463	2,463	2,463

$^{***}p < 0.01$, $^{**}p < 0.05$ $^{*}p < 0.1$; Standard errors in parentheses

Conclusion

To understand the effect of women's empowerment on child nutritional status in selected Sub-Saharan African countries, the study examined the five dimensions (agency, resources, leadership, workload and income) of women's empowerment, creating a women's empowerment index using the Alkire-Foster methodology. The findings of the study consistently reveal that empowering women by enhancing their agency, resources, income and leadership enables them to secure a more dynamic and nutrient-rich diet for their children. Policies aimed at improving child nutritional status must be fundamentally integrated with efforts to promote the empowerment of women, with a specific attention on enhancing their capacity to influence household food choices and access.

In view of these empirical insights, many actionable policy recommendations are proposed to promote women's empowerment in the selected Sub-Saharan African countries. First of all, social protection programmes in the selected Sub-Saharan African countries (Ghana, Burkina Faso, Kenya and Tanzania) should prioritise single mothers and their children to reduce economic and social vulnerabilities, while public health initiatives must remain inclusive of all family structures, ensuring unmarried women have access to nutritional education and support.

Secondly, effective policies should integrate women's empowerment, promoting education, economic opportunities, and access to health and sanitation services. Government efforts to strengthen healthcare systems and improve sanitation should be complemented by economic empowerment programmes that link income generation with nutritional awareness, including improving dietary diversity and feeding practices in children.

Additionally, both government and private institutions should mainstream women's empowerment into nutrition-specific interventions, combining nutritional education with training in financial literacy, decision-making, and negotiation skills. Government and private institutions should focus on programmes that enhance households' access to, and knowledge of, diverse food groups. This could include agricultural programmes promoting backyard gardens with a variety of crops, and nutrition education campaigns. Programme success should extend beyond traditional anthropometric indicators to include aspects of women's empowerment, including autonomy over income and participation in household choices, as key performance metrics reflecting broader impacts on child health.

Finally, sustained support from government and civil society organisations through women's savings groups and micro-enterprises can enhance women's financial independence and enable investments in nutrition-sensitive ventures like poultry farming or market gardening. Engaging men and community leaders as partners in challenging harmful gender norms and promoting shared childcare responsibilities is also crucial. To deepen understanding, future research should complement quantitative analyses with qualitative studies exploring how empowered women navigate household dynamics, social expectations, and resource constraints to achieve improved child nutritional outcomes.

Some limitations were observed in the process of the research work. These included secondary data, which excels at measuring observable outcomes (e.g., who makes a decision) but is fundamentally limited in capturing the process and quality of empowerment. We cannot discern from the data whether a woman's reported decision-making is genuine, reluctant, or the result of coercive delegation. The emotional and relational dynamics of intra-household bargaining, which are central to empowerment, remain invisible. Secondly, the empowerment-nutrition

pathway inherently involves intra-household dynamics, yet men's characteristics, attitudes, and behaviours are only captured indirectly through women's reports or are absent.

Conflict of Interests

No conflict of interests to declare.

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Editor's Note: The printed edition of the *Amsterdam Journal of Social Sciences Volume 2 Issue 2* includes 5 key references selected by the author. The full Bibliography and Appendices can be found online, the QR-code below links to the AJSS website with the article pfd.

Closing Statement

Marked by stringent budget cuts in education, rapid developments of artificial intelligence, and youth unemployment, we live in unprecedented times, making it increasingly difficult for our generation to make a living for ourselves, and maybe, more importantly, to live day-by-day without dreading the uncertainty of what the future brings in the midst of ongoing illegal wars, severe reductions in global aid funding, and inflammatory, radical populist politics. **As social scientists, it is more important than ever not to let ourselves be silenced in these precarious times**. The Amsterdam Journal of Social Sciences is an independent, student-based organisation whose mission is to amplify student voices and promote student-led research, ensuring that early-career researchers and upcoming social scientists have a platform to express themselves freely in a world which seems to offer fewer and fewer opportunities for them.

As you may have come to realise, this edition of the journal is a cautious, but somewhat optimistic mirror of our turbulent present, which invites you to reflect upon the workings of inequality through very distinct, yet deeply intertwined angles, while daring you to envision different future(s). Alonso-Marmelstein and Kaag discuss how research on Alcohol Use Disorder has been performed primarily on male populations, excluding menstrual cycle variations, and show that hormonal fluctuations affect its development and progression in women. Schneider-Reuter highlights how women in Formula 1 are perceived as “not yet fully legitimate competitors”, their achievements being undermined, and mistakes accentuated in media coverage. Faalakyer Banoeyele connects Sub-Saharan women’s empowerment to improved nutritional outcomes for their children. Persijanovas et al. elucidate the role of conversion therapy practices in Europe in shaming, isolating, and invalidating the gender and sexual identity of LGBTQ+ individuals. Folcia explores the function of cultural expression for displaced Syrians in the Netherlands reconstructing their identity through music, dance, visual art, and culinary traditions. Çiçek et al. show how Greek and Turkish Cypriot communities are divided based on their respective passports. Rhôné examines how discourses surrounding Roma inclusion reinforce hierarchical distinctions between urban citizens and territorially-regulated minority populations, positioning Roma communities in a space of urban marginality. Nurijanyan reveals how an “expertise void” daunts environmental issues in Armenia, a post-Soviet state with a legacy of institutional fragility and contested expertise. Lastly, Barbolovici discusses the relationship between insomnia and depression through novel mediating factors such as pre-sleep arousal. At the core of these studies stand otherwise invisible dynamics of

inclusion and exclusion, inviting contemplation over what research we deem important and how we come to these normative, often implicit judgements. **The authors of the current edition also suggest that research should be deeply imbued in practice to understand how we can best address the gender, sexual, racial-ethnic, and environmental inequalities threatening our societies, challenging us to envision a utopian society in which women, LGBTQ+, racial-ethnic minorities, displaced and neurodiverse individuals are not only safe, but also recognised and cherished.**

We would like to thank the authors of this edition, their guiding professors and tutors, our editorial team, and the board of the journal for their continuous, determined, and meticulous work in making this edition, our third-ever print since the inception of the Amsterdam Journal of Social Sciences, come to life. **This marks the end of the 2025-2026 academic year, but we definitely look forward to what the next year has to bring.**

~ Oana Nițu (Senior Editor)

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