Heterogeneity in Contraceptive Behaviour Dynamics and Unintended Pregnancy through Latent Class Analysis in Zambia

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Background

In sub-Saharan Africa, unmet need for family planning remains a significant health concern among women of reproductive ages. Such unmet needs have the potential to lead to an increase in unintended pregnancies and unsafe abortions, with a consequential impact on women's life expectancy and overall well-being. In Zambia, where approximately 20% of women face unmet need for family planning (ZDHS 2019) there exists a gap in understanding individual patterns of contraceptive use over time, a vital aspect to understand given the high rate of unintended pregnancies and the intricate relationship between contraceptive use, pregnancy intentions, and patterns of reproductive behaviour. While extensive research has explored trends in contraceptive use and sexual behaviour, there has been a scarcity of studies investigating the diversity of contraceptive use and sexual behaviour among women of reproductive ages in Zambia. As a country with high unmet contraceptive needs, limited female autonomy, a prevalence of risky sexual behaviour, and high HIV rates (Honkavuo et al 2021, ZDHS 2019), Zambia provides a compelling context for examining the dynamics of contraceptive use. This study aims to explore and analyse the variations in contraceptive use dynamics and attitudes toward sexual behaviour among women of reproductive ages. It seeks to categorise contraceptive use into subgroups and investigate how these groups relate in terms of their sociodemographic characteristics and sexual behaviours.
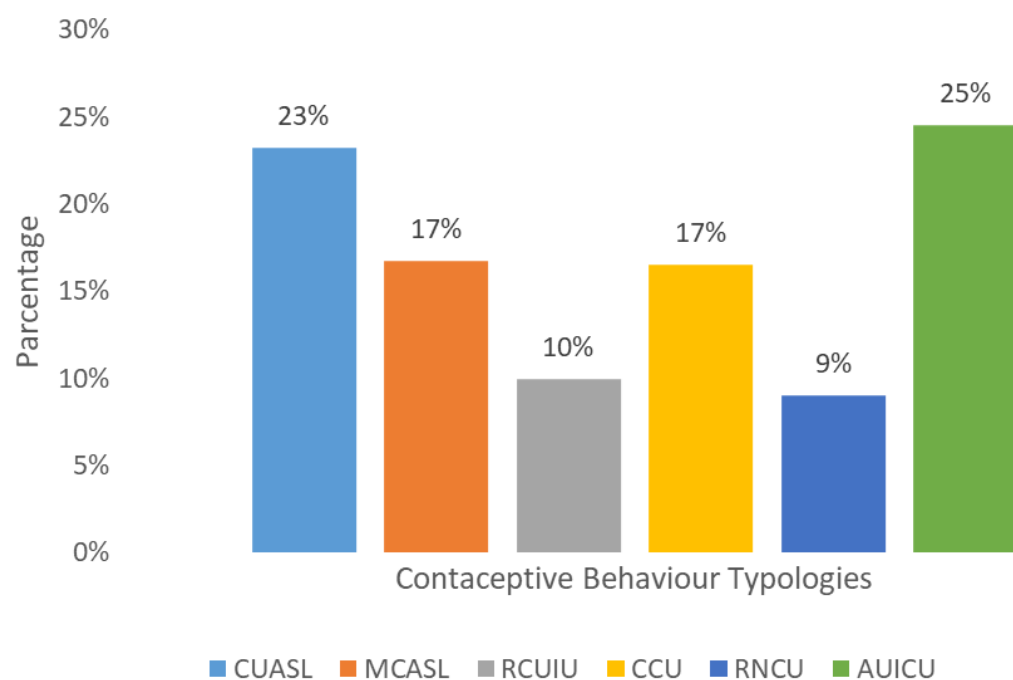
Methods

In this study, we use data from the 2013/14 and 2018 Demographic and Health Surveys to explore reproductive behaviour and pregnancies across two waves of data using latent class analysis. Utilising data from the 2018 Demographic and Health Survey (N = 13,683), we conducted latent class analysis to construct a typology of contraceptive use. Latent

class analysis employs a person-centred approach to discern heterogeneity among subgroups and homogeneity within them, based on associations among a set of observed indicators. The typologies developed include: 1. Contraceptive Users with Active Sexual Lives (CUASL) who are mostly in unions and have tried to delay a pregnancy, 2. Moderate Contraceptive Users with Active Sexual Lives (MCASL), 3. Reluctant Contraceptive Users in Inactive Unions (RCUIU), 4. Contradictory (Contradictory patterns) Contraceptive Users (CCU), 5. Reluctant Non-Contraceptive Users (RNCU) and 6. Active Unions with Inconsistent Contraceptive Use (AUICU).

Preliminary Results

Figure 1 shows preliminary results of the Contraceptive Behaviour Dynamics and Unintended Pregnancy through Latent Class Analysis.

Figure 1: Contraceptive Behaviour Typology among reproductive age women

The analysis shows six behaviour typologies that affect contraceptive use. These are; Contraceptive Users with Active Sexual Lives (CUASL) who are mostly in unions and have tried to delay a pregnancy (23%), Moderate Contraceptive Users with Active Sexual Lives (MCASL) (17%), Reluctant Contraceptive Users in Inactive Unions (RCUIU) (10%), Contradictory (Contradictory patterns) Contraceptive Users (CCU) (17%), Reluctant

Non-Contraceptive Users (RNCU) (9%) and Active Unions with Inconsistent Contraceptive Use (AUICU) (25%). Results show that there are various combination of factors that influence contraceptive use, in contrast to most literature that focus on single factors which may inadvertently overlook important factors that affect contraceptive use. These findings have substantial implications on how contraceptive use integrates into women's lives and sexual behaviours, particularly within the context of their partnerships. Further analysis will involve adding more survey years and analysing how these typologies are affected by sociodemographic factors.

Conclusion

This study utilises Latent Class Analysis (LCA) to explore patterns in contraceptive use among women by allowing the typologies to naturally emerge from the data, rather than being predetermined. The paper underscores the significance of acknowledging diversity in contraceptive usage among women of reproductive ages as an initial step towards understanding unmet family planning needs in high fertility countries like Zambia. These findings bear implications for similar societies facing unmet family planning needs, particularly in situations where women have limited contraceptive options and low levels of autonomy.

References

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