Examining the association between adverse childhood experiences and harmful health behavioral risk factors among older adults with multimorbidity in northern Nigeria

Examining the Association between Adverse Childhood Experiences and Harmful Health Behavioral Risk Factors among older adults with Multimorbidity in Northern Nigeria

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Presentation outline

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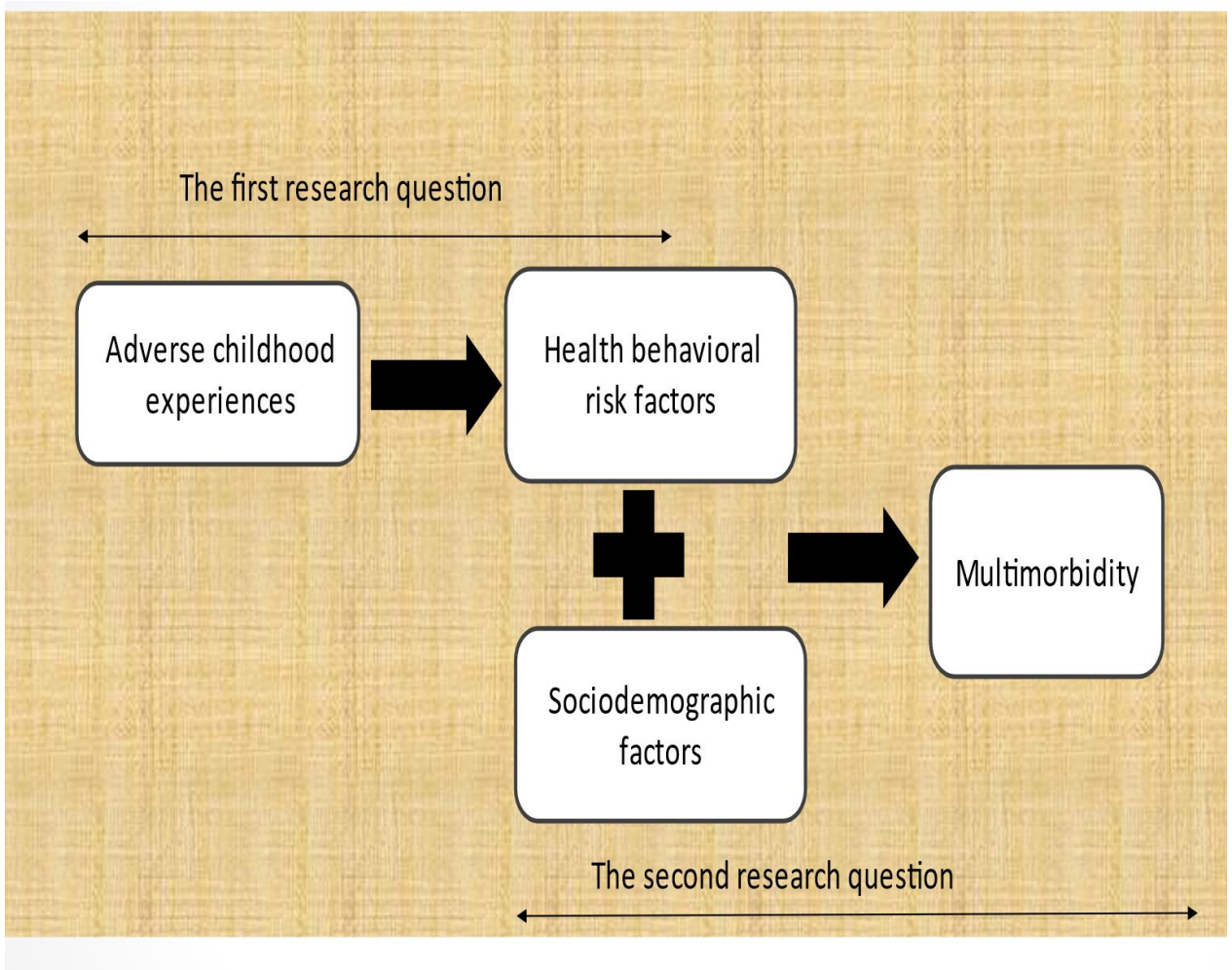
Background

- The study is from a larger study aimed at better understanding of multimorbidity of older adults in Niger state north central Nigeria.
- The study focused on the development and progression of multimorbidity among this age group, with emphasis on early determinant.
- Only the first research question is considered in this paper



Introduction

- Adverse childhood experiences (ACEs) are defined as the harms that affect children either directly such as child abuse, and child neglect, or indirectly in the form of their living conditions (1).

- ACEs affect the development of potentially impacting opportunities like education, employment, and income (2).

- Studies have reported that individuals with accumulated adverse childhood experiences are at an increased fold of developing more physical and mental health conditions and untimely death compared to those without ACEs exposure (3).

- The more ACEs reported in an individual, the higher their risky health behavior like smoking and alcohol consumption (4, 5,6).

Study Rationale, and Research Question

Adverse childhood experiences (ACEs) are expected to be associated with increased risky health behavior and poor health outcomes later in life. Little is known about the connection in high-violence, low-resource settings like Nigeria where exposure to ACEs is common throughout the life course.

Therefore, the research question is

- Does ACEs increase the risk of developing health risk behavior among patients with multimorbidity in Niger state, north-central Nigeria?

Methodology- Study design, setting, and participants

Study design

- The research design is cross-sectional and quantitative.
- Systematic random sampling was used to select 734 patients.
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- A purposeful sampling method was used to select 4 high-volume general hospitals, one each in the 3 senatorial districts and the one in the state capital, all having a good representative of multimorbid patients.

Inclusion and exclusion criteria of the study

Inclusion criteria

- Participants were patients 60 years and above with 2 or more chronic diseases (multimorbidity) who present for routine ambulatory outpatient and/ or from the community and consented to participate in the study.

Exclusion criteria

- However, the study excluded patients having communication problems and the acutely and severely sick that will need admission and/or a specialized line of management. Additionally, patients with any form of cognitive impairment were also excluded.

Ethical approval

- Ethical approval was obtained from the College of Nursing, Midwifery, and Healthcare, Research Ethics Panel, University of West London and Authorization was to collect data was gotten from the Research, Ethics, and publication committee (REPC) of Hospitals Management Board, Minna, Niger state of Nigeria.

Data collection

- Using face-to-face data collected electronically via JISC online survey software, conducted between October 2020 to February 2021. Niger is a state in the North central of Nigeria.

- The internal consistency was tested with Adverse Childhood Experiences International Questionnaire (ACE-IQ) and the patient satisfaction questionnaire (PSQ)-18.

- ACE displayed moderate but acceptable internal consistency (Cronbach's alpha: 0.6) while PSQ-18 displayed a strong cronbach's alpha of 0.7.

Measurement of variables and statistical analysis

Selected variables

1. Predictors of adverse childhood experiences (ACEs) exposure
Childhood Experiences International Questionnaire (ACE-IQ).Childhood Experiences International Questionnaire (ACE-IQ). 13 items

2. Information on the existence and intensity of lifestyle factors
Behavioral Risk Factor Surveillance (CDC-BRFSS-2019) questionnaires 4 items (smoking, alcohol, exercise, and eating habits)

Statistical analysis

Reported data were collated, checked, coded, and entered into JISC online survey software.
The data were then cleaned and analyzed using descriptive and inferential statistics.
Descriptive statistics were used to summarize the overall characteristics of the participants including gender, age, marital status, family structure, educational level, ethnicity, occupation, and level of income.

Results

- ACE scores were predictive of risk behaviors.

- At a 95% confidence interval, having 4 or more ACEs is associated with an increased risk of tobacco smoking (OR =1.592, 95% CI: .427-5.927, p<.01) and alcohol consumption with OR =1.078, 95%CI: .430-2.701, p<.01).

Limitation and conclusion

Limitation

The present study is a cross-sectional design, which does not permit causal extrapolation between ACEs and health behavior risk factors and health behavior risk factors and multimorbidity. However, since ACEs are childhood occurrences it indicates a temporal relationship between ACE exposure and health outcomes measured as of the survey date. To confirm hypotheses in the present study, longitudinal analyses are therefore required to gain further knowledge.

Conclusion

This study elaborates support for the development and progression of multimorbidity among older adults in Nigeria. Early identification of ACEs or their health consequences must be a priority for health practitioners, educators, social support workers, and policymakers to enhance policies and programs that will support families and conducive environments.

References

(1) Felitti VJ. Adverse childhood experiences and adult health. Academic pediatrics 2009;9(3):131.

(2) Metzler M, Merrick MT, Klevens J, Ports KA, Ford DC. Adverse childhood experiences and life opportunities: Shifting the narrative. Children and youth services review 2017;72:141-149.

(3) Bellis MA, Hughes K, Leckenby N, Hardcastle KA, Perkins C, Lowey H. Measuring mortality and the burden of adult disease associated with adverse childhood experiences in England: a national survey. Journal of public health 2015;37(3):445-454.

(4) Hughes K, Bellis MA, Hardcastle KA, Sethi D, Butchart A, Mikton C, et al. The effect of multiple adverse childhood experiences on health: a systematic review and meta-analysis. The Lancet Public Health 2017;2(8):e356-e366.

(5) Anda RF, Butchart A, Felitti VJ, Brown DW. Building a framework for global surveillance of the public health implications of adverse childhood experiences. Am J Prev Med 2010;39(1):93-98.

(6) Ramiro LS, Madrid BJ, Brown DW. Adverse childhood experiences (ACE) and health-risk behaviors among adults in a developing country setting. Child Abuse Negl 2010;34(11):842-855.