


Social determinants in health and mental well-being
among out-patients

Rainier C. Moreno-Lacalle, Pilar Bianca Mae G. Ducusin, Rayvine B. Suma-il, Lana Stephanie A. Tiu,
Kyla Dee Manantan, Karyle Myara E. Borromeo, Amanda Nicole N. Cruz, Romeo Benedict Landagora,
Chad Allen M. Nerona, Christian James R. Edualino
Saint Louis University, Baguio City, Philippines

Article Info	ABSTRACT
<p>Article history:</p> <p>Received Feb 28, 2025 Revised Aug 26, 2025 Accepted Nov 3, 2025</p> <p>Keywords:</p> <p>Health equity Mental well-being Out-patients Philippines Proximal-distal factors Public health Social determinants</p>	<p>Social determinants are crucial in shaping mental well-being, yet their specific impact within diverse cultural contexts like the Philippines remains underexplored. This study investigated the influence of social determinants on mental well-being among out-patients with mental health conditions. A retrospective cross-sectional design was used, analyzing existing health records (n = 21,813) from 2019 to 2024 and survey questionnaires (n = 89) from three psychiatric institutions. Social determinants were classified as proximal or distal, and mental well-being was assessed using the Warwick-Edinburgh Mental Well-being Scale (WEMWBS). Results showed that participants generally reported a high level of mental well-being. Regression analysis revealed that while proximal social factors collectively explained the largest variance in well-being (28.6%), they were not statistically significant predictors as a group. Conversely, specific distal factors—notably birth order (p<0.010), parental marital status (p<0.017), and a history of family sexual abuse (p<0.033)—were significant individual predictors. This research provides novel evidence on the application of the proximal-distal framework in a Filipino context, uniquely demonstrating that while broad social categories are influential, specific familial and life-course events are more direct predictors of mental well-being. The findings underscore the need for culturally-sensitive, targeted interventions that address both broad environmental factors and specific individual circumstances to promote health equity.</p> <p><i>This is an open access article under the CC BY-SA license.</i></p> <div></div>

Corresponding Author:
Rainier C. Moreno-Lacalle
Saint Louis University
Baguio City, Philippines
Email: moreno@slu.edu.ph

1. INTRODUCTION

The principle that health encompasses complete physical, mental, and social well-being is a foundational concept in global public health [1]. Within this holistic view, mental well-being—an individual's ability to cope with life's stresses, realize their potential, and contribute to their community—is profoundly influenced by the conditions in which they are born, grow, live, work, and age [2], [3]. These conditions, known as the social determinants of health (SDH), include a wide array of social, economic, cultural, and environmental factors that can lead to significant health inequities [4], [5].

A substantial body of international research has established strong links between SDH and mental health outcomes. Factors such as poverty, education level, and employment status are consistently identified as major predictors of mental health conditions [6], [7]. These determinants are often categorized by their

proximity to the individual: proximal factors, such as household income, have a direct impact, whereas distal factors, like economic inequality and cultural norms, exert an indirect influence [8]. For instance, studies in Great Britain show that households in the lowest income quintile are two to three times more likely to experience mental health issues [9], while research across Sub-Saharan Africa highlights how lower socioeconomic status creates significant barriers to healthcare access [10], [11].

Despite this global evidence, a significant research gap persists in understanding how these social determinants operate within specific, non-Western cultural contexts. While broad factors like income and education are universally relevant, more nuanced social factors tied to cultural and familial structures remain underexplored, particularly in Southeast Asian nations like the Philippines. For example, the country faces unique challenges related to mental healthcare, where strong cultural stigma and inconsistent help-seeking behaviors are major barriers to accessing professional support [12]. This situation suggests that deeper, culturally-specific social dynamics, such as the role of the family, community obligations, and specific life-course events, may play a more decisive role in shaping mental well-being than is currently understood. Factors such as birth order, parental marital stability, and histories of intra-familial abuse have been largely overlooked in local research, yet they represent critical aspects of the social environment that could directly impact mental health trajectories.

This study was motivated by the need to address this gap by providing a more comprehensive, culturally-situated understanding of how social determinants affect mental well-being among Filipinos with mental health conditions. By applying the proximal-distal framework developed by [13], [14], this research moves beyond universal determinants to investigate the predictive power of these specific, and often unexamined, social factors. This research investigates how social determinants of mental health predict the well-being of patients with mental health conditions, with the specific objectives of identifying common social determinants, determining the level of mental well-being, examining the relationship between social determinants and well-being, and assessing the predictive level of proximal and distal social determinants on patients' well-being.

2. METHOD

A retrospective cross-sectional research design was employed to analyze the role of social determinants on the well-being of patients with mental health conditions [15], as shown in Figure 1. The data were collected at a single point in time. This study collected data from the facilities' database and existing health records from the past six years, from 2019 to 2024. At the same time, questionnaires were administered to out-patients in the selected psychiatric facilities. This approach allowed for a snapshot of the associations between various social determinants and the mental well-being of the target population [16].

2.1. Setting and sample

The study setting includes three distinct health facilities in the Philippines: a community-based clinic (Barangay Aurora Hill), a public health office (Baguio City Health Services), and a tertiary hospital (Baguio General Hospital and Medical Center). The study population included out-patients aged 18-80 (and emancipated minors aged 15-17) who had a consultation for a diagnosed mental health condition, including thought, mood, substance abuse, anxiety, neurodevelopmental, cognitive, and eating disorders. Convenience sampling was used to recruit participants. Exclusion criteria included patients in acute psychotic states, inpatients requiring immediate care, individuals exhibiting aggressive or suicidal behavior, vagrants, and those with incomplete health records. All participants were deemed capable of providing informed consent.

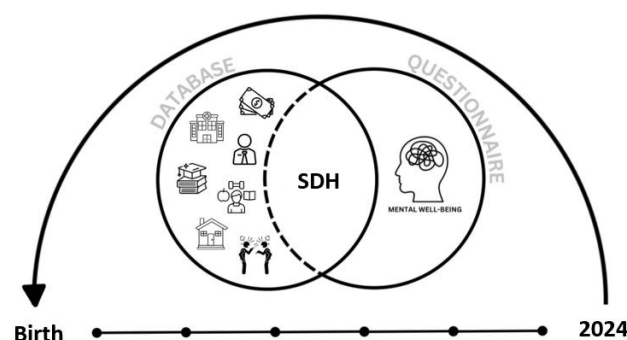


Figure 1. Retrospective cross-sectional design

2.2. Data gathering instruments

Two instruments were utilized. Mental well-being was measured using the Warwick-Edinburgh Mental Well-being Scale (WEMWBS), a 14-item scale with established validity and reliability [17], [18]. The WEMWBS has demonstrated high internal consistency (Cronbach's alpha from 0.83 to 0.97) across diverse populations [18]. A self-administered questionnaire was developed to collect data on social determinants of health (SDH), guided by the Lund *et al.* framework [13], [14]. The questionnaire was structured into proximal and distal factors. To ensure its quality, the instrument underwent a rigorous validation process. Content validity was established through review by three public health experts (content validity index = 0.88). Reliability was confirmed via internal consistency testing (Cronbach's alpha = 0.91), and readability was assessed using the Fog Index (40%).

2.3. Data gathering procedure

Ethical approval was secured from Saint Louis University-Research Ethics Committee (SLU-REC 2024-015). Following ethical approval from the university's ethics board, the research team initiated data collection. The process involved two parallel methods: first, extracting anonymized data on social determinants from existing patient databases and electronic health records (EHR) at the facilities; and second, distributing the WEMWBS and SDH questionnaires to eligible outpatients in psychiatric departments. Healthcare staff assisted in identifying and approaching potential participants.

2.4. Data management and ethical considerations

Multivariate regression analysis was used to examine the relationship between social determinants (independent variables) and mental well-being scores (dependent variable). All procedures adhered to the ethical guidelines of the Philippine Health Research Ethics Board (PHREB) [15]. Informed consent was obtained from all participants, with materials translated into local dialects to ensure comprehension. Participants were informed of their right to withdraw at any time. To protect confidentiality, all data extracted from databases were de-identified, computer files were encrypted, and access was restricted to the research team.

3. RESULTS

Table 1 (see Appendix) presents the demographic, biological, and social characteristics of mental health patients in select facilities within the Philippines. The demographic profile of the 21,813 patient records revealed a population predominantly composed of young adults (46.0% aged 18-30) and females (62.3%), with mood disorders being the most common diagnosis (48.0%). This profile is consistent with general trends in mental health service utilization, where younger individuals and women are often more likely to seek help. The prevalence of mood disorders underscores a significant public health challenge within the studied population. The findings from Table 1 reveal a complex interplay of demographic, biological, social, and economic factors influencing mental well-being among outpatients with mental health conditions. The high prevalence of mood disorders and the potential influence of family history highlight the need to consider both individual and familial factors in mental health care. The significant correlation between birth order and mental well-being suggests that family dynamics and roles may play a role in shaping mental health. The overrepresentation of young adults and females in the sample is consistent with broader trends in mental health service utilization.

The assessment of mental well-being, conducted on a subset of 89 survey participants using the WEMWBS, indicated a surprisingly high level of overall well-being, as can be gleaned from Table 2. A striking 12 out of the 14 items on the scale were rated as "High," suggesting a resilient population despite their clinical diagnoses. The item "feeling loved" received the highest mean score (3.93), pointing to the vital role of social connection, while "interest in other people" scored the lowest (mean = 3.30), which, while still in the "Average" range, may signal underlying issues with social engagement or withdrawal.

The multivariate regression analysis yielded complex results regarding the predictive power of social determinants, as in Table 1. When analyzed as individual variables, several proximal factors showed a significant correlation with mental well-being, including age ($p < 0.010$), religion ($p < 0.015$), civil status ($p < 0.001$), occupation status ($p < 0.037$), and illegal drug use ($p < 0.009$). However, a crucial finding emerged when these factors were grouped: the entire block of proximal social factors, while explaining the largest portion of variance in well-being (28.6%), failed to reach statistical significance as a collective predictor ($p > 0.574$).

In stark contrast to the proximal factors, specific distal social determinants demonstrated strong and statistically significant predictive power, as shown in Table 3. The analysis revealed that an individual's birth order ($p < 0.010$), the marital status of their parents ($p < 0.017$), and a history of family sexual abuse ($p < 0.033$) were all significant predictors of current mental well-being. This finding indicates that foundational aspects of an individual's early life and family environment have a more direct and lasting statistical impact on their mental health outcomes than their more immediate social or economic circumstances.

Table 2. Extent of mental well-being of patients

Items	None of the time (Count/%)	Rarely (Count/%)	Some of the time (Count/%)	Often (Count/%)	All of the time (Count/%)	No data (Count/%)	Mean	Interpretation
Optimism about the future	10/11.2%	16/18%	18/20.2%	18/20.2%	15/16.9%	12/13.5%	3.54	High
Feeling useful	4/4.5%	15/16.9%	20/22.5%	19/21.3%	18/20.2%	13/14.6%	3.80	High
Feeling relaxed	11/12.4%	14/15.7%	25/28.1%	10/11.2%	16/18%	13/14.6%	3.51	High
Interest in other people	11/12.4%	18/20.2%	26/29.2%	13/14.6%	9/10.1%	12/13.5%	3.30	Average
Energy to spare	10/11.2%	19/21.3%	22/24.7%	17/19.1%	9/10.1%	12/13.5%	3.36	Average
Dealing with problems well	8/9%	18/20.2%	22/24.7%	17/19.1%	12/13.5%	12/13.5%	3.48	High
Thinking clearly	6/6.7%	17/19.1%	26/29.2%	16/18%	12/13.5%	12/13.5%	3.53	High
Feeling good about myself	7/7.9%	17/19.1%	22/24.7%	17/19.1%	13/14.6%	13/14.6%	3.57	High
Feeling close to other people	6/6.7%	14/15.7%	26/29.2%	14/15.7%	17/19.1%	12/13.5%	3.65	High
Feeling confident	8/9%	19/21.3%	20/22.5%	14/15.7%	16/18%	12/13.5%	3.53	High
Able to make up my mind about things	5/5.6%	22/24.7%	17/19.1%	23/25.8%	10/11.2%	12/13.5%	3.53	High
Feeling loved	6/6.7%	10/11.2%	20/22.5%	13/14.6%	28/31.5%	12/13.5%	3.93	High
Interest in new things	9/10.1%	14/15.7%	16/18%	13/14.6%	25/28.1%	12/13.5%	3.75	High
Feeling cheerful	11/12.4%	9/10.1%	21/23.6%	13/14.6%	23/25.8%	12/13.5%	3.72	High

Table 3. Distal social determinants of mental well-being

Table 3. Distal social determinants of mental well-being											
Distal factors		Categories	Frequency (%)	R	p-value	F (R ²)	p-value				
Demographic factors	Birth order	First	23 (26.1%)	0.340	0.001*	4.09 (0.168)	<0.010*				
		Second	15 (17.0%)								
		Third	21 (23.9%)								
		Fourth	12 (13.6%)								
		Fifth	5 (5.7%)								
		Seventh	1 (1.1%)								
		Eight	1 (1.1%)								
		No data	10 (11.4%)								
	Clinically diagnosed with a mental health condition	Thought disorder	4059 (19.9%)	-	0.351						
		Mood disorder	9812 (48.0%)	0.100							
		Substance abuse	310 (1.5%)								
		Anxiety disorder	757 (3.7%)								
		Neurodevelopmental disorder	440 (2.2%)								
		Cognitive disorder	49 (0.2%)								
No data	5013 (24%)	0.029	0.792								
Gender	Yes					10 (11.4%)					
	No					77 (87.5%)					
	No data					1 (1.1%)					
Ethno-linguistic membership	Yes	11 (12.5%)	-	0.104							
	No	77 (87.5%)	0.175								
	2nd-3rd degree family member/s with mental health condition	Yes					23 (25.8%)	0.197	0.064	2.08 (0.046)	<0.018*
		No					65 (73.0%)				
	Physical disability	No data					1 (1.1%)	0.112	0.295		
		Yes					10 (11.2%)				
Economic factors	Job discrimination	No	77 (86.5%)	0.101	0.345	0.903 (0.01)	<.001*				
		No data	2 (2.2%)								
		Yes	12 (13.5%)								
Environmental factors	Abuse (physical)	No	74 (83.1%)	-	0.739	1.84 (0.194)	<0.010*				
		No data	3 (3.4%)								
	Family attempted to engage sexually with you	Yes	29 (32.6%)	0.036	0.033*						
		No	60 (67.4%)								
	Marital status of parent	Yes	9 (10.1%)	0.226	0.017*						
		No	80 (789.9%)								
		No data	15 (21.4%)								
Social factors	Part of an organization	No	54 (77.1%)	0.120	0.265	1.26 (0.014)	<0.001*				
		No data	1 (1.4%)								
		Yes	32 (36.0%)								
		No	55 (61.8%)								
		No data	2 (2.2%)								

4. DISCUSSION

This study's findings offer a critical, culturally-situated re-evaluation of the proximal-distal framework for understanding social determinants of mental health. The central and most compelling result is the disjuncture between the predictive power of proximal and distal factors: while immediate social circumstances (proximal) collectively explained more variance, it was the foundational, early-life factors (distal) that emerged as statistically significant predictors. This paradox suggests that in a collectivistic, family-oriented culture like the Philippines, the impact of present-day stressors is heavily filtered through the lens of one's established role within the family and formative life experiences [19], [20].

The high self-reported well-being, especially the peak score for "feeling loved," strongly resonates with the core Filipino cultural value of *kapwa* (shared identity). This concept, which denotes a shared identity and deep interconnectedness, posits the self not as an isolated individual but as inextricably linked to others, particularly family [21]. This powerful cultural script may serve as a significant psychological buffer, allowing individuals to maintain a sense of well-being and belonging even when facing proximal adversities like unemployment or financial instability [22], [23]. This aligns with findings from other Southeast Asian contexts published in this journal, where strong community social support has been shown to be associated with respect and healing [24]. Conversely, the lower score for "interest in other people" may reflect the internal conflict created by mental health stigma. While individuals feel loved and supported within their core unit, the societal stigma associated with their condition can foster social withdrawal and a reluctance to engage with the wider community, a dynamic observed in other socially cohesive Asian cultures [25], [26].

The statistical prominence of distal factors, birth order, parental marital status, and abuse history, underscores the enduring legacy of family structure and adverse childhood experiences (ACEs). In the Filipino context, birth order is not a trivial detail; it often dictates lifelong responsibilities, expectations, and familial roles, thereby shaping an individual's entire life course and stress exposure [27]. The significance of parental separation and abuse aligns with a vast body of global research on ACEs, which robustly demonstrates that early life trauma creates long-term neurobiological and psychological vulnerabilities [28], [29]. Our findings assert that these distal events are not dormant historical data points but are active, potent forces that continue to shape mental health in adulthood.

The non-significance of the *grouped* proximal factors is perhaps the most theoretically challenging finding. It compels a move beyond a simple additive model of social determinants toward one that prioritizes interaction and cultural mediation. For example, the proximal factor of being unemployed may have a vastly different impact on an individual who is the eldest child (*panganay*), and thus culturally expected to be a primary provider, compared to a youngest child (*bunso*), who may receive continued family support [30]. This suggests that the predictive power of a proximal factor is contingent upon the distal context in which it occurs. Therefore, a culturally attuned SDH framework must account for how distal factors, like family roles and history, define the meaning and severity of proximal stressors [31], [32].

5. CONCLUSION

This study confirms that social determinants are critical predictors of mental well-being among outpatients in the Philippines, but with a notable cultural nuance. The primary finding is that specific distal factors rooted in family structure and life-course events, such as birth order, parental marital status, and history of abuse—exert a more significant statistical influence on mental well-being than aggregated proximal factors. This highlights the enduring impact of one's developmental and familial context, which appears to mediate the effects of more immediate social and economic conditions in a collectivistic society.

These findings have direct implications for public health policy and clinical practice. Interventions should adopt a two-pronged approach: first, by addressing immediate needs through accessible mental health services, but second, and perhaps more critically, by incorporating family-systems therapy and trauma-informed care that acknowledge the deep-seated influence of an individual's life history. For future research, longitudinal studies are essential to track the causal pathways between social determinants and well-being over time. Furthermore, qualitative research is needed to explore the lived experiences behind these statistical associations, particularly how cultural values like *kapwa* (shared identity) and *utang na loob* (debt of gratitude) function as both protective and stress-inducing factors in the context of mental health.

The cross-sectional design prevents the establishment of causal relationships between social determinants and mental well-being, limiting the understanding of how these factors influence each other over time. The sample may not be representative of all outpatients with mental health conditions in the Philippines, as it was drawn from three specific psychiatric facilities only. The reliance on self-reported data may introduce recall or social desirability bias, and the custom SDH questionnaire may not capture all relevant social determinants or cultural nuances. The study may not have fully accounted for all potential

confounding variables, such as individual resilience and access to mental health services. Finally, the use of multivariate regression analysis assumes a linear relationship between variables, which may not accurately reflect the complex relationship between social determinants and mental well-being.

ACKNOWLEDGMENTS

This section should acknowledge the esteemed panel members: Dr. Teresa Basatan, Prof. Diadem Depayson, Prof. Sahlee Florendo, and Prof. Mary Rose Valenzuela for their substantial inputs to improve the manuscript.

FUNDING INFORMATION

Authors state no funding involved.

AUTHOR CONTRIBUTIONS STATEMENT

This journal uses the Contributor Roles Taxonomy (CRediT) to recognize individual author contributions, reduce authorship disputes, and facilitate collaboration.

Name of Author	C	M	So	Va	Fo	I	R	D	O	E	Vi	Su	P	Fu
Rainier C. Moreno-Lacalle	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Pilar Bianca Mae G. Ducusin	✓			✓	✓	✓	✓	✓	✓		✓	✓		✓
Rayvine B. Suma-il	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
Lana Stephanie A. Tiu	✓		✓		✓	✓	✓	✓	✓					
Kyla Dee Manantan	✓			✓	✓	✓	✓	✓	✓	✓		✓		
Karyle Myara E. Borromeo	✓	✓	✓		✓	✓	✓		✓					
Amanda Nicole N. Cruz	✓			✓	✓	✓	✓		✓		✓			
Romeo Benedict Landagora	✓	✓		✓	✓	✓	✓	✓	✓					
Chad Allen M. Nerona	✓		✓		✓	✓	✓		✓					
Christan James R. Edualino					✓	✓	✓	✓	✓					

- C : **C**onceptualization
M : **M**ethodology
So : **S**oftware
Va : **V**alidation
Fo : **F**ormal analysis
- I : **I**nvestigation
R : **R**esources
D : **D**ata Curation
O : **O**riting - **O**riginal Draft
E : **O**riting - **R**eview & **E**ding
- Vi : **V**isualization
Su : **S**upervision
P : **P**roject administration
Fu : **F**unding acquisition

CONFLICT OF INTEREST STATEMENT

Authors state no conflict of interest.

INFORMED CONSENT

We have obtained informed consent from all individuals included in this study.

ETHICAL APPROVAL

The study was approved by Saint Louis University-Baguiο City Research Ethics Committee with an approval number of SLU-REC 2024-015.

DATA AVAILABILITY

The data that support the findings of this study are available from the corresponding author, [RCML], upon reasonable request.

REFERENCES

- [1] World Health Organization (WHO), "Constitution," WHO. 2024. [Online]. Available: <https://www.who.int/about/governance/constitution>
- [2] E. Kim and B. Lindeman, *Wellbeing*. Cham: Springer International Publishing, 2020. doi: 10.1007/978-3-030-29470-0.
- [3] R. Nemati-Vakilabad, P. Mostafazadeh, and A. Mirzaei, "Investigating the impact of organizational justice on the relationship between organizational learning and organizational silence in clinical nurses: A structural equation modeling approach," *Journal of Nursing Management*, vol. 2024, no. 1, Jan. 2024, doi: 10.1155/2024/7267388.
- [4] World Health Organization (WHO), "Social determinants of health," WHO, 2025. https://www.who.int/health-topics/social-determinants-of-health#tab=tab_1
- [5] S. N. Gnanapragasam, L. Astill Wright, M. Pemberton, and D. Bhugra, "Outside/inside: social determinants of mental health," *Irish Journal of Psychological Medicine*, vol. 40, no. 1, pp. 63–73, Mar. 2023, doi: 10.1017/ipm.2021.49.
- [6] H. Santamaria-García *et al.*, "The role of social cognition skills and social determinants of health in predicting symptoms of mental illness," *Translational Psychiatry*, vol. 10, no. 1, p. 165, May 2020, doi: 10.1038/s41398-020-0852-4.
- [7] G. Ilgün, "What are the socioeconomic determinants of mental disorders?," *Perspectives in Psychiatric Care*, vol. 58, no. 4, Oct. 2022, doi: 10.1111/ppc.13136.
- [8] A. Frakt, "The proximal/distal paradigm," *Harvard Global Health Institute*, 2019. [Online]. Available: <https://globalhealth.harvard.edu/the-proximal-distal-paradigm/>.
- [9] Mental Health Foundation, "Poverty: statistics," *Mental Health Foundation*, 2023. [Online]. Available: <https://www.mentalhealth.org.uk/explore-mental-health/statistics/poverty-statistics>.
- [10] T. S. Alameh *et al.*, "Socioeconomic inequality in barriers for accessing health care among married reproductive aged women in sub-Saharan African countries: a decomposition analysis," *BMC Women's Health*, vol. 22, no. 1, p. 130, Apr. 2022, doi: 10.1186/s12905-022-01716-y.
- [11] B. Zegeye *et al.*, "Association between women's household decision-making autonomy and health insurance enrollment in sub-Saharan Africa," *BMC Public Health*, vol. 23, no. 1, p. 610, Mar. 2023, doi: 10.1186/s12889-023-15434-z.
- [12] A. B. Martinez, M. Co, J. Lau, and J. S. L. Brown, "Filipino help-seeking for mental health problems and associated barriers and facilitators: a systematic review," *Social Psychiatry and Psychiatric Epidemiology*, vol. 55, no. 11, pp. 1397–1413, Nov. 2020, doi: 10.1007/s00127-020-01937-2.
- [13] C. Lund, S. Stansfeld, and M. De Silva, "Social determinants of mental health," in *Global Mental Health*, Oxford University Press, 2013, pp. 116–136. doi: 10.1093/med/9780199920181.003.0007.
- [14] C. Lund *et al.*, "Social determinants of mental disorders and the Sustainable Development Goals: a systematic review of reviews," *The Lancet Psychiatry*, vol. 5, no. 4, pp. 357–369, Apr. 2018, doi: 10.1016/S2215-0366(18)30060-9.
- [15] Philippine Health Research Ethics Board, "National ethical guidelines for health and health related research," *Philippine Health Research Ethics Board*. <https://ethics.healthresearch.ph/index.php/phoca-downloads/category/4-neg>.
- [16] M. Setia, "Methodology series module 3: Cross-sectional studies," *Indian Journal of Dermatology*, vol. 61, no. 3, p. 261, 2016, doi: 10.4103/0019-5154.182410.
- [17] B. P. R. Perera, A. Caldera, P. Godamunne, S. Stewart-Brown, A. R. Wickremasinghe, and R. Jayasuriya, "Measuring mental well-being in Sri Lanka: validation of the Warwick Edinburgh Mental Well-being Scale (WEMWBS) in a Sinhala speaking community," *BMC Psychiatry*, vol. 22, no. 1, p. 569, Aug. 2022, doi: 10.1186/s12888-022-04211-8.
- [18] A. Dong *et al.*, "Psychometric properties of the Chinese Warwick-Edinburgh mental well-being scale in medical staff: Cross-sectional study," *Journal of Medical Internet Research*, vol. 24, no. 11, p. e38108, Nov. 2022, doi: 10.2196/38108.
- [19] M. Merino, J. F. Tomero-Aguilera, A. Rubio-Zarapuz, C. V. Villanueva-Tobaldo, A. Martín-Rodríguez, and V. J. Clemente-Suárez, "Body perceptions and psychological well-being: A review of the impact of social media and physical measurements on self-esteem and mental health with a focus on body image satisfaction and its relationship with cultural and gender factors," *Healthcare*, vol. 12, no. 14, p. 1396, Jul. 2024, doi: 10.3390/healthcare12141396.
- [20] D. M. Frost and D. Castro, "An integrated understanding of the mechanisms linking social stigma to mental health among marginalized populations," *Nature Mental Health*, vol. 2, no. 6, pp. 645–654, Jun. 2024, doi: 10.1038/s44220-024-00264-8.
- [21] J. Macaraeg and C. S. Bersamira, "Intersecting kapwa, resilience, and empowerment: A case study of Filipinos in Hawai'i during the COVID-19 pandemic," *Asian American Journal of Psychology*, Dec. 2024, doi: 10.1037/aap0000348.
- [22] E. Patmisari, Y. Huang, M. Orr, S. Govindasamy, E. Hielscher, and H. McLaren, "Interventions supporting meaningful connections for people with serious mental illness: a concept-framed systematic narrative review," *Social Psychiatry and Psychiatric Epidemiology*, pp. 1–26, Jun. 2025, doi: 10.1007/s00127-025-02812-8.
- [23] S. L. D. Restubog, A. C. P. Chua, and R. D. D. C. Uy, "The role of familism in the well-being of Filipino university students," *The Asia-Pacific Education Researcher*, vol. 29, no. 1, pp. 1–10, 2020.
- [24] L. H. Nguyen, M. T. Bui, and T. T. Nguyen, "Support group model for Vietnamese people affected by substance abuse and HIV/AIDS," *International Journal of Public Health Science (IJPHS)*, vol. 14, no. 2, pp. 729–739, 2025, doi: 10.11591/ijphs.v14i2.25129.
- [25] M. D. Blinka *et al.*, "'I make myself get busy': Resilience and social connection among low-income older adults living in subsidized housing," *Journal of the American Geriatrics Society*, vol. 72, no. 10, pp. 3188–3199, Oct. 2024, doi: 10.1111/jgs.19069.
- [26] T. K. Oswald *et al.*, "Interventions targeting social determinants of mental disorders and the sustainable development goals: a systematic review of reviews," *Psychological Medicine*, vol. 54, no. 8, pp. 1475–1499, Jun. 2024, doi: 10.1017/S0033291724000333.
- [27] Y. Xu, N. Zhan, D. Zhang, Z. Xie, G. Li, and H. Huang, "The effect of sense of security on job performance of medical staff: the mediating effect of psychological capital," *Frontiers in Psychology*, vol. 15, Apr. 2024, doi: 10.3389/fpsyg.2024.1347783.
- [28] V. J. Felitti *et al.*, "Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults," *American Journal of Preventive Medicine*, vol. 14, no. 4, pp. 245–258, May 1998, doi: 10.1016/S0749-3797(98)00017-8.
- [29] R. F. Anda *et al.*, "The enduring effects of abuse and related adverse experiences in childhood," *European Archives of Psychiatry and Clinical Neuroscience*, vol. 256, no. 3, pp. 174–186, Apr. 2006, doi: 10.1007/s00406-005-0624-4.
- [30] M. R. M. Hechanova and B. N. Teh, *The way we heal: Stories of recovery from mental illness*. Ateneo de Manila University Press, 2022.
- [31] M. Alegria, A. NeMoyer, I. Falgàs Bagué, Y. Wang, and K. Alvarez, "Social determinants of mental health: Where we are and where we need to go," *Current Psychiatry Reports*, vol. 20, no. 11, p. 95, 2018, doi: 10.1007/s11920-018-0969-9.
- [32] C. G. Coll, E. L. Marks, and J. B. Garcia, *The Oxford handbook of culture and development*. Oxford University Press, 2023.

APPENDIX

Table 1. Prediction of proximal social determinants on mental well-being




Proximal factors		Categories	Frequency (%)	R	p-value	F (R ²)	p-value
Demographic factors	Age	≤ 17 years old	2379 (10.9)	0.348	<0.001*	3.53 (0.147)	<0.010*
		18-30 years old	10075 (46.0)				
		31-50 years old	6886 (31.4)				
		51-70 years old	2214 (10.1)				
		71 and above	327 (1.5)				
	Gender	No data	17 (0.1)	0.041	0.704		
		Female	13635 (62.3)				
		Male	8251 (37.7)				
		LGBTQIA+	4 (0.01)				
	Religion	No data	6 (0.01)	0.257	0.015*		
		Roman Catholic	49 (55.1)				
		Christian	9 (10.1)				
		Born Again	9 (10.1)				
		Iglesia ni Cristo	2 (2.2)				
		Jehova's Witness	4 (4.5)				
	Ethnicity	No data	7 (7.9)	-0.038	0.724		
		Igorot	30 (33.7)				
		Tagalog	26 (29.9)				
		Ilocano	18 (20.7)				
		Pangasinense	3 (3.4)				
		Ilonggo	2 (2.3)				
		Others	10 (11.2)				
		No data	1 (1.1)				
Biological factor	First degree family member/s with a mental condition	Yes	19 (21.3)	-0.011	0.0921	1.81 (0.197)	<0.001*
		No	69 (77.5)				
Economic factors	Access to mental health services	Yes	51 (57.3)	-0.036	0.741	0.656(0.102)	0.037*
		No	36 (40.4)				
		No data	2 (2.2)				
	Occupation status	Employed	21 (23.6)	0.222	0.037*		
		Unemployed	48 (53.9)				
		Self-employed	11 (12.4)				
		Retired	3 (3.4)				
		No data	6 (6.7)				
	Time that you have been working (employed and self-employed)	Less than 6 months	9 (29.0)	0.097	0.581		
		Less than a year	2 (6.4)				
		More than a year	20 (64.5)				
Environmental factors	Abuse (verbal) from the family	Yes	48 (53.9)	0.154	0.151	1.01 (0.0345)	<0.001*
		No	41 (46.1)				
	Attempted to self-harm within the last 12 months	Yes	32 (36.0)	0.125	0.241		
		No	56 (62.9)				
	Living with someone with a drug/alcohol addiction	No data	1 (1.1)	0.005	0.966		
		Yes	31 (34.8)				
		No	58 (62.9)				
Social factors	Alcohol drinker	No data	2 (2.2)	0.138	0.266	0.876 (0.286)	0.254
		Yes	35 (39)				
		No	49 (55.1)				
	Civil status	No data	5 (5.6)	0.389	<0.001*		
		Single	56 (62.9)				
		Married	21 (23.6)				
		Widowed	1 (1.1)				
		Separated/annulled	3 (3.4)				
		Cohabitation	1 (1.1)				
	Drugs (illegal) use	No data	7 (7.9)	0.276	<0.009*		
		Yes	7 (7.9)				
		No	75 (84.3)				
		No data	7 (7.9)				
	Frequency of communicating with others	Less than once a week	15 (16.9)	0.031	0.770		
		1 or 2 times a week	20 (22.5)				
		3 to 5 times a week	46 (51.7)				
		No data	8 (9.0)				

Table 1. Prediction of proximal social determinants on mental well-being (continued)




Table 1. Prediction of proximal social determinants on mental well-being (continued)										
Proximal factors		Categories	Frequency (%)	R	p-value	F (R ²)	p-value			
Social factors	House problems	Bug infestation	12 (13.5)	0.024	0.823	0.876 (0.286)	0.254			
		Mold	7 (7.9)							
		Lead paint or pipes	1 (1.1)							
		Inadequate heat	4 (4.5)							
		Oven or stove not working	1 (1.1)							
		No or not working smoke detectors	2 (2.2)							
		Water leaks	5 (5.6)							
		Inadequate living space	4 (4.5)							
		None of the above	47 (52.8)							
		No data	6 (6.7)							
	Living with	Living alone	7 (8.5)	0.056	0.610					
		Immediate family	61 (68.5)							
		Extended family	4 (4.0)							
		Partner	14 (15.7)							
		Friends	4 (4.0)							
	Monthly income	No data	2 (2.4)	0.021	0.898					
		3,000-5,000 per month (\$51-86)	10 (24.4)							
		6,000-10,000 per month (\$102-171)	11 (26.8)							
		11,000-20,000 per month (\$188-343)	9 (22.0)							
		21,000-30,000 per month (\$360-515)	5 (12.2)							
		More than 30,000 per month (\$516)	1 (2.4)							
		≥ 2,999 per month (below 50)	4 (.8)							
		No data	1 (2.4)							
		Specific 1st degree family member/s with a mental conditions	Mother					6 (31.6)	0.257	0.287
			Father					2 (10.5)		
			Children					1 (5.3)		
			Sibling					7 (36.8)		
			Mother + Children					1 (5.3)		
			Mother + Father + Sibling					1 (5.3)		
			No data					1 (5.3)		

BIOGRAPHIES OF AUTHORS






Rainier C. Moreno-Lacalle    is a multi-disciplinary researcher with a Ph.D. in Nursing from Saint Louis University. He has led a project focused on creating a mobile application for indigenous peoples in the Cordillera Administrative Region suffering from depression and suicidal ideation. He is skilled in quantitative and qualitative research methodologies, including data collection, analysis, and interpretation. He has a proven track record of publishing in peer-reviewed journals and presenting at conferences. He is eager to apply his skills to public health system modeling and contribute to research that has the potential to impact public health outcomes. He can be contacted at email: moreno@slu.edu.ph.






Pilar Bianca Mae G. Ducusin    is a fourth-year nursing student that is set to graduate in the Class of 2025 of Saint Louis University under the program, Bachelor of Science in Nursing. Her exposure to psychiatric and community-based nursing has strengthened her advocacy for mental health and well-being causes that led to this research project, which was a product of her research class in her third year of college. In promoting the study, she was able to participate and present in the 22nd ADPCN National Conference for Nursing Students held in Fiesta Pavilion, Manila Hotel, Ermita, Manila for poster presentation. Besides this notable feat, she is enthusiastic in partaking and garnering more similar-like experiences in research presentations and building connections nationwide. As of now, her research interests include nursing education, pediatric nursing, and medical-surgical nursing and wishes to gather more insights and experiences. She can be contacted at email: phoebeducusinph@gmail.com.






Rayvine B. Suma-il    is a fourth-year nursing student at Saint Louis University – Baguio City and a consistent Dean's Lister. Over the past three years, he has gained extensive experience in psychiatric nursing, school nursing for children with special needs, and community health nursing in far-flung areas. With a strong research interest in psychiatric nursing, community health, and healthcare innovations, he is dedicated to exploring ways to improve patient care and public health. In the current study, he contributed to manuscript writing and editing, data gathering, and data analysis. He can be contacted at email: rayvinesumail@gmail.com.






Lana Stephanie A. Tiu    is a fourth-year student nurse driven by a deep passion for providing compassionate and holistic care to patients across diverse healthcare settings. During her psychiatric nursing training, she refined her ability to understand and care for individuals with mental health conditions. This experience reinforced the importance of destigmatizing mental health and advocating for the well-being of every patient. Throughout her journey, she has developed a profound appreciation for holistic care, recognizing that each patient has unique physical, emotional, and psychological needs. Committed to continuous learning and professional growth, she strives to expand her knowledge and skills to contribute meaningfully to the ever-evolving field of nursing. With her diverse experiences and unwavering dedication to delivering exceptional care, she looks forward to making a lasting impact in the lives of patients and embracing the next stage of her nursing career, where she can continue to grow, learn, and advocate for those in her care. She can be contacted at email: lanastephanietiu@gmail.com.






Kyla Dee Manantan    is a fourth-year nursing student at Saint Louis University in Baguio City, with a fundamental commitment to the mental health sector of nursing. She is trained in basic psychiatric nursing and psychosocial care, and her dedication to mental health advocacy led her to complete a summer program in Mental Health and Wellness at the University of British Columbia, Vancouver, in August 2024. Kyla Dee's primary areas of interest include psychiatry, medical-surgical nursing, and nursing anesthesiology. She is eager to specialize in one of these fields, and is determined to pursue a career and research in these clinical areas, contributing to the advancement of patient care and nursing practice. In the current research study, she contributed to manuscript writing and editing, data collection, data analysis, and interpretation, collaborating with colleagues to survey individuals facing mental health challenges. Her ongoing dedication to advancing mental health care is evident in her academic and advocacy endeavors. She can be contacted at email: kydee.mntn@gmail.com.






Karyle Myara E. Borromeo    is a graduating fourth-year nursing student at Saint Louis University – Baguio City and a consistent Dean's Lister. Throughout her nursing journey, she has actively immersed herself in diverse academic and clinical experiences, refining her skills, resilience, and dedication to the healthcare profession. Her strong foundation in patient care, clinical research, and nursing education has been shaped by her commitment to continuous learning and excellence. Karyle is driven by a deep passion for compassionate and holistic patient care, which has developed a profound appreciation for the emotional and psychological well-being of individuals. Her training in psychiatric nursing has refined her ability to provide comprehensive care to patients with mental health conditions, reinforcing her commitment to mental health advocacy and destigmatization. Her research interests are nursing education, patient-centered care, and healthcare innovations that focus on mental health nursing and community-based interventions. In the current study, she has contributed to manuscript writing and editing, data collection, and data analysis. She can be contacted at email: borromeo.karylemyara@gmail.com.






Amanda Nicole N. Cruz    is a fourth-year nursing student at Saint Louis University – Baguio City, known for her strong communication skills, compassion, and dedication to continuous learning. As a consistent Dean's Lister, she has excelled academically while immersing herself in diverse clinical experiences that have strengthened her ability to provide patient-centered care. Her exposure to psychiatric nursing has deepened her appreciation for mental health, reinforcing the importance of empathy, advocacy, and holistic interventions in nursing practice. Beyond clinical work, she is passionate about research and innovation, actively contributing to studies that bridge theory with practice, enhancing her analytical and collaborative skills. She believes that effective nursing extends beyond technical expertise, requiring adaptability, critical thinking, and meaningful patient engagement. Through her commitment to excellence and professional growth, she strives to be a nurse who not only provides high-quality care but also advocates for mental health awareness, improved healthcare communication, and continuous advancements in patient care. By combining academic excellence with a deep sense of compassion, she aims to make a lasting impact on the lives of her patients and contribute to the ever-evolving field of nursing. She can be contacted at email: cruz.amandanicole0@gmail.com.






Romeo Benedict Landagora    is a fourth-year nursing student at Saint Louis University, Baguio City, recognized as a consistent honor student and Dean's Lister. His dedication to psychiatric nursing is driven by the belief that mental health is integral to overall well-being and essential to holistic healthcare. As a student leader, he has actively contributed to the University's Student Council, advocating for student engagement in healthcare, social involvement, and research. Beyond academics, he is committed to community outreach, health education, and public awareness initiatives that promote accessible, client-centered care. With a strong dedication to bridging gaps in mental health services, he seeks to advance research, leadership, and advocacy to uphold compassionate, evidence-based nursing practice. He can be contacted at email: rblandagora30@gmail.com.



Chad Allen M. Nerona    is a fourth-year nursing student at Saint Louis University - Baguio City. With a passion for healthcare and psychiatric nursing, he has developed a particular interest in data analysis as a tool for enhancing evidence-based nursing practices. Over the past years, he has gained valuable experience in clinical rotations, including psychiatric nursing and community health settings. In the current study, he contributed primarily to data analysis, interpretation, and the validation of research findings. He is dedicated to advancing patient care through research and innovative nursing approaches. He can be contacted at email: chadsternerona@gmail.com.



Christian James R. Edualino    is a nursing student at Saint Louis University in Baguio City, Benguet, and a consistent Dean's Lister. He is deeply passionate about lifelong learning and the ever-evolving field of healthcare. His journey in nursing has been shaped by both academic excellence and hands-on experiences, particularly in psychiatric nursing, where he has developed a profound appreciation for mental health care. Research has become an avenue for him to further this passion, allowing him to bridge theory with real-world application. In the current study, he contributed in manuscript writing, data gathering, and analysis. This experience has strengthened his ability to think critically, work collaboratively, and translate research into meaningful insights. Beyond technical skills, his work in research and clinical practice has deepened his empathy and commitment to patient-centered care. He can be contacted at email: christanjamesedualino@gmail.com.