DDC Professional Journal
Vol. 6 No. 1, May 2025
ISSN 1908-3130

Caregiver's Strain and Caring Behavior among Primary Caregivers of Mentally Ill Individuals in North Cotabato

Earl Allyn P. Angulo, RN, LPT
Davao Doctors College

Abstract

This predictive -correlational study examined the level of strain experienced by primary caregivers of Mentally Ill Individuals and their caring behaviors. The study was conducted in the municipality of Makilala, North Cotabato, involving 173 purposively selected primary caregivers. Data were collected through an adapted version of the Caregiver Strain Questionnaire-24 and the Caring Behavior Inventory-16. Findings revealed that the majority of respondents were middle-aged, married, unemployed females with a high school education. Caregivers reported high levels of caring behavior, particularly in terms of assurance, knowledge and skill, and respectfulness. The overall result of the level of strain is moderate, but the highest strain was observed in the "Subjective Internal Strain" category. Significant associations were found between caregiver demographic characteristics and either caregiver strain or caring behavior. Moreover, a significant relationship was identified between caregiver strain and caring behavior, specifically in the category of Objective Strain and Subjective Internalized Strain. Lastly, the study revealed that caregiver strain in terms of objective strain showed a significant influence on the level of caring behavior among primary caregivers. These findings highlight the importance of addressing both objective and internalized strain in developing effective caregiver support programs.

Keywords: *Nursing, Caregiver Strain, Caring Behavior Descriptive-Predictive, North Cotabato*

Corresponding email: earlallynangulo@gmail.com
ORCID ID: https://orcid.org/0009-0004-8033-6416

Introduction

Caregivers have been reported to experience psychological distress and strain during care of family relatives with mental disorders or disabilities (Gil, Wayne 2024). Researchers have therefore come to define caregiver strain as unwanted and negative experiences that caregivers experience as a result of taking care of their mentally ill relative (Ayalew et al., 2019). Suffering psychological distress and strain during care, not only affect the quality of life and health of the caregiver, but will also affect their productivity as an individual, and their ability to provide quality care for the ill relative, therefore worsens the health of the mentally ill relative and decreasing the likelihood of their possible recovery or improved health (Udoh et al., 2021).

In 2019, 1 in every 8 people, or 970 million people around the world were living with a mental disorder, with anxiety and depressive disorders the most common. Despite the high burden of mental disorders, there is an inadequate response with regards to treatment and provision of care for people with mental disorders (Abdullah et al., 2024). They regularly receive care and treatment in unprofessional settings, in homes by their

family relatives, and evidence show that about 90% of people with mental illness get support from their families (Udoh et al., 2021).

Locally, in the Philippines, the prevalence of mental disorders ranged between 11.3% and 11.6%, with an average annual increase of 2.0%; increasing from 7.0 to 12.5 million Filipinos diagnosed with a mental disorder between 1990 and 2019 (National Institutes of Health, 2023). Access to mental health services remains challenging where mental health professionals are scarce and therapy sessions continue to become a financial burden (Balita, 2024). This is especially true in rural communities, where caring for the sick is commonly left to the family members (Jack-ide et al., 2022). Although care giving in a home setting is reported to be associated with significant mental distress, the burden of such distress is rarely measured (Ndlovu et al., 2023).

Thus, this study aims to contribute to starting a planned intervention or program directed to the caregivers of mentally ill individuals by knowing the level of strain and its influence on their caring behavior. Related to this, a recommendation from the study of Ebrahim et al. (2020) that a Psycho educational program must be directed towards the caregivers of people with mental illness since his study resulted to high level burden of care. Moreover, a study also cited that Family caregivers of patients with mental illness experienced a high level of care giving burden. The results suggest that family caregivers of patients with mental illness, particularly those from lower socioeconomic status, should be informed about the risk of care giving burden and are supported via a range of formal and informal services to develop strategies and build resilience to cope with caregiving challenges While there is recognition that it is essential to support caregivers, dedicated intervention programs, and support strategies to respond to the needs of caregivers are still needed (Lorito et al., 2021).

Methods

This study was conducted in the Municipality of Makilala, located in the southeast portion of North Cotabato, Philippines. Makilala borders Kidapawan City to the north, M'lang Municipality to the west, Davao Del Sur Province to the south, and Tulunan Municipality to the southeast. The town is situated 129 kilometers (80 miles) from Cotabato City, 100 kilometers (62 miles) from Davao City, and 114 kilometers (71 miles) from General Santos. It consists of 38 barangays, which are further divided into puroks and, in some cases, sitios.

A predictive-correlational research design was employed to explore the relationship between caregiver strain and caregiving behaviors among primary caregivers of individuals with mental illness. Specifically, the study aimed to examine how different types of caregiver strain—emotional, physical, and financial—affect caregiving behaviors. It investigated whether higher levels of strain result in less effective caregiving or if certain caregiving actions, such as emotional support or assistance with daily activities, help alleviate strain.

The study targeted primary caregivers of individuals with mental illness residing in Makilala, North Cotabato. Participants were selected using purposive sampling. Inclusion criteria for respondents included: (1) being a legal adult (18 years or older), (2) having been a caregiver for at least six months, and (3) willingness to participate in the study.

Data were gathered using two primary instruments: the Caregiver Strain Questionnaire (CSQ) adapted from Brannan et al. (1997) and the Caring Behavior Inventory (CBI-16) adapted from Wu et al. (2017). The CSQ is a 19-item tool designed to measure the extent and nature of strain experienced by caregivers, while the CBI-16 consists of 16 items to assess the frequency and importance of caregiving behaviors. Both instruments use a five-point Likert scale

to assess responses, ranging from 1 (never) to 5 (always). The CSQ and CBI-16 were validated for reliability through content validity index and pilot testing.

The researcher first sought permission to conduct the study by submitting a letter to the Master of Arts in Nursing Program Chair, the Municipal Health Offices, and the Municipal Mayor. After approval, coordination with the Barangay Captains and Barangay Health Workers was initiated to identify eligible respondents. The researcher provided an overview of the study's objectives and emphasized the confidentiality of responses to encourage honest participation. Data collection took place through personal visits to Rural Health Units and Barangay Health Stations, where questionnaires were distributed to respondents. Ethical standards were maintained throughout the process. After data collection, all responses were collated, analyzed, and interpreted. The collected documents were securely shredded to ensure confidentiality.

Descriptive statistics, including frequency and percentage, were used to analyze the demographic profile of respondents. Mean and standard deviation were employed to summarize caregiver strain levels, categorized by emotional and psychological distress, financial strain, physical strain, and social disruptions. Pearson's correlation coefficient (Pearson R) was applied to examine the relationship between caregiver strain and caregiving behaviors. Eta correlation was used to explore the association between demographic variables and caregiver strain. Multiple linear regression analysis was conducted to determine whether caregiver strain significantly influences caregiving behaviors.

The study adhered to strict ethical standards to safeguard participants' well-being, confidentiality, and autonomy. Informed consent was obtained, ensuring transparency about the study's objectives, participants' rights, and voluntary involvement. Privacy and confidentiality were prioritized, with data securely stored and destroyed after analysis. The study emphasized voluntary participation, ensuring participants could make informed decisions without external pressure.

Results and Discussion

Table 1. The Demographic Profile of the Respondents.

Demographic Profile	Frequency (n=148)	Percentage
Age:		
20-30 years old	15	10.15%
31-40 years old	22	14.9%
41-50 years old	31	20.9%
51-60 years old	47	31.8%
61-70 years old	25	16.9%
71-80 years old	6	4.1%
81-90 years old	2	1.4%
Total	**148**	**100%**
Sex:		
Male	28	18.9%
Female	120	81.1%
Total	**148**	**100%**
Educational Attainment:		
Elementary Level	2	1.4%

Elementary Graduate	14	9.5%
Highschool Level	54	36.5%
Highschool Graduate	35	23.6%
College Level	39	26.4%
College Graduate	4	2.7%
Total	**148**	**100%**
Marital Status:		
Single	18	12.2%
Married	114	77.0%
Widowed	16	10.8%
Total	**148**	**100%**
Employment Status:		
Self-Employed	34	23.0%
Employed	10	6.8%
Unemployed	104	70.3%
Total	**148**	**100%**

Table 1 shows that there are 148 respondents who participated in the study. It is worth noting that primary caregivers of mentally ill persons are dominated by females (120/148 or 81.1%) and are mostly under the age range of 51-60 years old otherwise termed as quinquagenarian which falls under middle age or middle adulthood (https//en. wikipedia.org.) This result is not surprising as caring for mentally ill person is very tedious and complicated job that requires extra patience and tolerance which is more observed to be true to females than males. In fact, in their study that determines which gender has more patience, Dittrich and Leipold (2014) concluded that women tend to be more patient than men. Moreover, much greater than majority (114/77%) are married and are unemployed (104/70.3%). Married persons are being exposed to multi-roles that make them more tolerant to complicated roles like caring of mentally ill person. Meanwhile, caring of mentally ill individual requires, if possible, a "round the clock" surveillance, hence, the result of 70.3% unemployed is justified.

Table 2. The Level of Primary Caregivers' Strain.

Indicators	Mean	SD	Interpretation
Objective Strain	3.10	1.15	Moderate
Subjective Externalized Strain	2.11	0.94	Low
Subjective Internalized Strain	4.16	0.84	High
Overall	**3.12**	**0.98**	**Moderate**

Note: Note: 4.21-5.00---Very High ;3.41-4.20---High; 2.61-3.40---Moderate; 1.81-2.60---Low; 1.00-1.80---Very Low; SD- Standard Deviation.

Table 2 presents the level of primary caregiver's strain of which has an overall mean of 3.12 which means moderate. Subjective Internalized strain has the highest mean of 4.16 and subjective externalized strain has the lowest mean which is 2.11. This result supports the findings of the studies of Martire et al. (2021) and

Gallagher et al. (2021) who claimed Caregivers of individuals with mental illness often experience a range of emotional disturbances, including feelings of sadness, guilt, frustration, and helplessness, which are all under Subjective Internalized Strain. Additionally, this finding validates the claims of Martire et al. (2021) and Gallagher et al. (2021) which highlighted the emotional toll of caregiving, with caregivers reporting high levels of psychological distress and burnout. Moreover, said result is further justified by Angermeyer and Matschinger (2019) and Corrigan et. al. who claimed that the stigma associated with mental illness can further exacerbate caregivers' emotional burdens.

On the other hand, Subjective Externalized Strain has the lowest mean which implies that primary caregivers of mentally ill individuals have or takes lesser strain on concerns external to him/her that include even the patient under his/her care.

Table 3. The Primary Caregivers' Level of Caring Behavior.

Indicators	Mean	SD	Interpretation
Respectfulness	4.02	0.84	High
Assurance	4.04	1.01	High
Connectedness	3.23	1.06	Moderate
Knowledge and Skill	3.96	0.95	High
Overall	**3.81**	**0.97**	**High**

Note: Note: 4.21-5.00---Very High ;3.41-4.20---High; 2.61-3.40---Moderate; 1.81-2.60---Low; 1.00-1.80---Very Low; SD- Standard Deviation.

On the level of caring behavior among primary caregivers, Table 3 reveals the overall mean of 3.81 and standard deviation of 0.97 which means high. The key dimension 'assurance' got the highest mean of 4.04 while connectedness got the lowest mean of 3.23. It can be gleaned that the respondents of this study are having favorable caring behavior relative to their role as caregiver to mentally ill individuals to be specific. The overall mean of 3.81 which is high generally implies a more positive and advantageous behavior as caregiver. This result is quite gratifying since according to the proposition of Thakur et al. (2022), caring is an issue of pivotal concern in the treatment and rehabilitation of patients with major mental disorders and the behavior of the caregiver is its crucial contributory factor.

Table 4: The Test of Association between the Demographic Profile and Level of Primary Caregivers' Strain.

Demographic Profile	Caregiver Strain			
	r_s	p-value	Decision	Remarks
Sex	.143	.082	Accept H_{01}	NS
Educational Attainment	.214	.993	Accept H_{01}	NS
Marital Status	.207	.019	Reject H_{01}	S
Employment Status	.147	.514	Accept H_{01}	NS

Note: p<0.05 (Significant); NS-Not Significant; η = eta; DV-Caregiver Strain.

Table 4 shows the test of association between demographic profile and caregiver strain. The results revealed that demographic profile in terms of marital status (η =.207, p=.019) among primary caregivers had a significant association with caregiver strain. The null hypothesis is then rejected. On the other hand, sex (η =.143, p=.082), educational attainment (η =.214, p=.993), and employment status (η =.147, p=.514) did not show any significant association with caregiver strain, leading to the acceptance of null hypothesis (H_{02}) as their p-values are more than 0.05 alpha level of significance.

It can be noted that marital status with r and p-value of .207 and .019, respectively is the only demographic profile that has significant influence on the caregivers's strain. This result may somehow, give credits to the claims of Kiecolt-Glaser and Newton (2021) that married caregivers may experience both positive and negative effects on their well-being, depending on the quality of their marital relationship and the level of support they receive from their spouse. Additionally, the intricate role of a married caregiver caring both his/her family and a mentally ill patient is indeed very tough, hence this result.

With the foregoing, it can be asserted that although the demographic profiles mentioned above, are having influence on the caregivers' strain, the extent of their influence to the latter is not really that significant except for marital status.

Table 5: The Test of Association between the Demographic Profile and Level of Primary Caregivers' Caring Behavior.

Demographic Profile	Caring Behavior			
	r_s	p-value	Decision	Remarks
Age	.172	.413	Accept H_{02}	NS
Sex	.126	.128	Accept H_{02}	NS
Educational Attainment	.266	.337	Accept H_{02}	NS
Marital Status	.151	.243	Accept H_{02}	NS

Employment Status	.113	.251	Accept H_{02}	NS

Note: p<0.05 (Significant); NS-Not Significant; η = eta

Table 5 shows the test of association between demographic profile and the caring behavior. The results revealed that demographic profile in terms of age (η =.172, p=<.413), sex (η =.126, p=.128), educational attainment (η =.266, p=.337), marital status (η =.151, p=.243), and employment status (η =.113, p=.251) had no significant relationship with caring behavior among primary caregivers. These led to the acceptance of null hypothesis (H_{02}) as their p-values are more than 0.05 alpha level of significance.

Table 6: The Test of Relationship between the Caregiver's Strain and Caring Behavior.

Caregiver Strain	**Caring Behavior**			
	r_s	**p-value**	**Decision**	**Remarks**
Objective Strain	.225	.006	Reject H_{03}	S
Subjective Externalized Strain	.138	.093	Accept H_{03}	NS
Subjective Internalized Strain	.240	.003	Reject H_{03}	S
Overall	.201	.034	Reject H_{03}	S

Note: p<0.05 (Significant); NS-Not Significant; η = eta; DV-Work-Life Balance.

Table 6 shows the test of relationship between caregiver strain and caring behavior among primary caregivers. The overall result (r_s =.201, p=.034) shows that caregiver strain has a significant relationship to the caring behavior among primary caregivers. Specifically, in terms of objective strain (r_s =.225, p=.006), and subjective internalized strain (r_s =.240, p=.003) had a significant, positive relationship with caring behavior. On the other hand, the subjective externalized strain domain did not show any significant relationship with caring behavior (r_s =.138, p=.093), leading to the acceptance of null hypothesis (H_{03}) as its p-value is more than 0.05 alpha level of significance.

With the foregoing, it can be deduced that a significant interplay exists between the Caregiver's Strain and Caring Behavior particularly on the aspects that relate directly or indirectly to the caregiver (Subjective Internalized Strain) and the personal issues as well as the people closely related to him/her (Objective Strain) that are adversely affected by his/her role as caregiver. As what the study of Li et. al. (2019) says, the unpredictable nature of caring for someone with mental illness can lead to heightened

levels of stress, anxiety, and depression among caregivers. On the contrary, no significant relationship exist between Subjective Externalized Strain and Caring Behavior.

Table 7. The Test of Influence of Caregiver Strain on Caring Behavior among Primary Caregivers.

CB	Observed Estimate	Bootstrap SE	Z	P-value	Decision	Remarks
Mean						
Caring Behavior	3.793	.038	98.90	0.000		
Effect						
Objective strain	.149	.067	2.23	0.026	Reject H_{04}	Significant
Subjective externalize strain	.073	.069	1.07	0.285	Accept H_{04}	Not Significant
Subjective internalized strain	.102	.146	0.70	0.486	Accept H_{04}	Not Significant

Note: Significant if p-value <.05; R^2= 0.6133; DV-CB (Caring Behavior).

Table 7 revealed that caregiver strain in terms of objective strain (OE=.149, p=.026) showed a significant influence on the level of caring behavior among primary caregivers. This led to the rejection of null hypothesis (H_{04}) as its p-value is less than 0.05 alpha level of significance. On the other hand, other domains like subjective externalized strain (OE=.073, p=.285), and subjective internalized strain (OE=.102, p=.486) did not show any significant influence on caring behavior. Furthermore, the findings were apparent in the results of nonparametric regression analysis in which 61.33% of the variance of caring behavior can be explained by caregiver strain in terms of objective strain as indicated by an r-square of 0.6133. This would mean that 38.67% of the variation can be attributed to other factors aside from caregiver strain.

The above findings simply imply that the behavior of the caregiver is more affected with strains that relates to issues external to him/her and those issues and concerns inherent to the surrounding people directly related to her/him such as friends and family members (Objective Strain). According to Li et al. (2019), the unpredictable nature of caring for someone with mental illness can lead to heightened levels of stress, anxiety, and depression among caregivers. Although to some extent, the caregivers' caring behavior is affected by issues concerning the patient himself (Subjective Externalized Strain) it cannot equate to the extent caused by those that directly and indirectly relates to the caregiver himself/herself.

Congruently, the findings accentuate the WHO's description of caregiver strain/burden as "the emotional, physical, financial demands, and responsibilities of an individual's illness that are placed on the family members, friends, or other individuals who are affected directly or indirectly." (Thakur et al., 2022). Moreover, this result is supported by the study of Marius (2024) that caring behavior of caregivers for mentally ill individuals is influenced by their understanding of mental illness, the emotional and psychological challenges they face, and the support systems available to them (Marius, 2024)

Base on the findings of the study, the following enhancement program is proposed:

Title of the Program	Empowering Clinical Instructors: Integrating Caregiver Support into Healthcare Education
Purpose	The primary purpose of this program is to equip clinical instructors with the tools, knowledge, and resources necessary to integrate caregiver strain and support into their curricula. It aims to ensure that future healthcare professionals are well-prepared to recognize, address, and alleviate the emotional, psychological, and practical burdens faced by primary caregivers of mentally ill individuals. This will ultimately lead to a more holistic approach in patient care that includes supporting caregivers in their roles.
Time Frame	February 2025 to May 2025
Persons involve	Program coordinator, Clinical Instructor, Speakers, Curriculum Designers and Evaluation team
Budget	50,000
Activities	Program Orientation and Introduction Workshop and Training Sessions for Clinical Instructors Curriculum Revision and Integration Pilot testing and Feedback Program Evaluation and Reflection
Expected output	Increased Awareness and Understanding Enhanced Curriculum Improved Student Competence Development of Effective Tools and Resources Positive Feedback from Stakeholders

Conclusion and Recommendation

In conclusion, while primary caregivers face varying levels of strain, emotional burdens and external caregiving challenges significantly impact their caregiving behavior. Marital status also plays a role in the strain experienced, though demographic factors like age, education, and employment status appear less influential. This study underscores the need for tailored support systems to address the emotional and external challenges faced by caregivers, especially those experiencing high objective and internalized strains. Moreover, this study would like to proposed an enhancement program for caregiver support to be integrated in the healthcare education to bridge the gap between caregiving challenges and nursing education, ultimately fostering a more compassionate, informed, and holistic approach to patient care. By integrating the findings of this study into nursing curricula, future nurses will be better prepared to support both patients and caregivers in managing mental illness, resulting in improved patient outcomes and enhanced caregiver well-being.

Given the high levels of subjective internal strain reported by caregivers, this

study recommends to design targeted intervention programs that address the emotional and psychological challenges caregivers face. Programs focused on mental health support, stress management, and coping mechanisms may alleviate the inner emotional burdens associated with caregiving. Moreover, caregivers may benefit also from workshops or resources focusing on self-care strategies to alleviate strain and burnout.

Furthermore, as the result shows that primary caregivers are experiencing Subjective internalized strain, it is recommended that person with mental illness must be involved in programs that include them in the caregiving process, improving their sense of agency and involvement. This can reduce the strain felt by caregivers and promote mutual respect and understanding. Moreover, awareness of Caregiver Burden through Mental health education for patients could help them understand the strain their caregivers are experiencing, fostering empathy and encouraging collaboration in care routines.

Moreover, integration of caregiver support as a part of the overall care plan for individuals with mental illness is recommended. Services such as caregiver counseling, skill-building workshops, and respite care should be offered to support caregivers and reduce their strain. Moreover, that provide financial and social support for caregivers, especially those who are middle-aged, unemployed, or have low education levels.

Further, creating a specific module within nursing education dedicated to caregiver support and mental health education is recommended. This module should explore both the burden on caregivers and how to mitigate these challenges through education and community resources. Furthermore, this ensure that clinical placements for nursing students include exposure to situations where family caregivers are integral to the patient's care, particularly in mental health settings. This should include both theoretical learning and practical application within clinical placements.

Lastly, as this study was conducted in a single municipality (Makilala, North Cotabato) with a relatively small sample size (173 caregivers), future studies should aim for larger, more diverse samples across different regions to increase the generalizability of the findings. Moreover, the predictive-correlational design used in this study does not establish causal relationships. Longitudinal studies are recommended to examine the long-term effects of caregiver strain on caregiving behavior and mental health. Lastly, while demographic variables like marital status were found to have a significant association with caregiver strain, other potential factors, such as the severity of the mental illness or caregiver experience, were not explored. Future studies could include these factors to provide a more comprehensive understanding of caregiving dynamics.

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DDC Professional Journal
Vol. 6 No. 1, May 2025
ISSN 1908-3130