



Exploring Psychological Distress, Burden of Care and Emotional Intelligence as Correlates of Psychological Well-being in Family and Non-family Caregivers of Individuals Living with Cannabis-induced Psychotic Disorder

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ABSTRACT

Caring for individuals living with cannabis-induced psychotic disorder poses unique challenges that significantly impact caregivers' psychological well-being. This study delved into this complex caregiving landscape, exploring how psychological distress, the burden of care, and emotional intelligence collectively influence caregivers' psychological well-being. The study was conducted at the Federal Neuropsychiatric Hospital, Yaba, Lagos Nigeria. The research adopted purposive sampling, involving one hundred (100) participants encompassing both family and non-family caregivers. Participants completed four key instruments: The General Health Questionnaire (GHQ) – 12, Zarit Burden Interview (ZBI), Trait Emotional Intelligence Questionnaire (TEIQue), and Psychological Well-being Scale (PWB). Descriptive statistics provided mean and standard deviation values for psychological distress, burden of care, emotional intelligence, and psychological well-being, with the reliability of each scale assessed. Hypothesis testing included t-tests, simple linear regression, Pearson correlation, and multiple linear regression, yielding significant findings. Notably, family caregivers did not bear a significantly higher burden of care compared to their non-family counterparts ($t = -.108, p < .05$). Furthermore, female caregivers exhibited superior psychological well-being in contrast to male caregivers ($t = -4.594, p < .05$). Emotional intelligence significantly impacted psychological well-being ($R^2 = .262$), and a positive relationship existed between psychological distress and well-being ($r = .596, p < .05$). Lastly, psychological distress, emotional intelligence, and the burden of care collectively shaped psychological well-being ($R^2 = .526$). This research unravels the intricate dynamics faced by caregivers of individuals with cannabis-induced psychotic disorder, highlighting the pivotal roles of emotional intelligence and psychological distress. These insights deepen understanding of caregivers' experiences and provide a foundation for tailored interventions to bolster their overall well-being.

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INTRODUCTION

In today's world, the prevalence of Mental health-related conditions has been a subject of great concern in the health sector. In a study conducted by the World Health Organization (WHO), it was discovered that there has

been a 25% global increase in mental health-related conditions since the advent of the COVID-19 pandemic.¹ In comparison, studies conducted by the WHO in 2001 revealed that four hundred and fifty million (450 million) people were living with one mental health disorder or the other.² However, in 2019, the numbers have increased dramatically to 1-in-8 people or nine hundred and seventy million (970 million) people worldwide.³ Cannabis-induced psychotic disorder, also known as cannabis-induced psychosis is the most common subtype of substance abuse disorder under the DSM-5.⁴ It is a condition in which the use of cannabis (marijuana) triggers psychotic symptoms in individuals who are susceptible to or at risk for developing psychosis.

In Nigeria, the prevalence of mental disorders is yet to be properly documented and published online for research use. However, in an interview with the News Agency of Nigeria (NAN), Mr. Taiwo Obindo, who is also the chairman of the Faculty of Psychiatry, West African College of Physicians, Nigeria Chapter, stated that “More than 60 million Nigerians are suffering from various mental illnesses.”⁵ Thus, with a population of 220 million citizens,⁶ the researchers concluded that Nigeria has a prevalence of about 27% of its citizens, who are currently living with one mental disorder or the other. One such mental disorder is cannabis-induced psychotic disorder.

Cannabis is one of the most popular and regularly used psychoactive substances in the world, with one in four adults admitting to having used it at some point in their lifetime.⁷ In Nigeria, a national drug use survey conducted by the National Bureau of Statistics in 2018, in collaboration with the United Nations Office on Drugs and Crime (UNODC), revealed that cannabis is one of the most widely used psychoactive drugs, with approximately 10.6 million Nigerians, aged 15-64, admitting to have used the drug during their lifetime.⁸ Self-report studies revealed that individuals who use cannabis report consuming the drug because of its tremendously intoxicating effects, depicted as the “high” that is responsible for pleasurable sensations like calmness, pleasure, or sociability.⁹ In a study conducted by LaFrance, Stueber, Glodosky, Mauzay, and Cuttler, the reoccurring use of cannabis can result in a variety of negative psychiatric effects such as panic attacks, anxiety, eating disorders as well as psychotic experiences such as paranoia, a delusion of grandiosity or hallucinations.¹⁰

Cannabis-induced psychotic disorder, also known as cannabis-induced psychosis is the most common subtype of substance abuse disorder under the DSM-5.¹¹ It is a condition in which the use of cannabis (marijuana) triggers psychotic symptoms in individuals who are susceptible to or at risk for developing psychosis. Psychosis refers to a mental state characterized by a loss of touch with reality, leading to delusions, hallucinations, disorganized thinking, and abnormal behavior. According to the Diagnostic and Statistical Manual of Mental Disorders (DSM-5), a diagnosis of Cannabis-Induced Psychotic Disorder is made when at least one or both delusions and hallucinations are present, the delusion and/or hallucinations are experienced during or soon after cannabis in-take/intoxication, the disturbance does not occur exclusively during a delirium, and the disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning. Other criteria for the disorder are that cannabis should be thought to be capable of producing the disturbance seen and that the disturbance should not be able to be better explained by an independent psychotic disorder that is not cannabis-induced (such as pre-existing schizophrenia). Due to the adverse effects of cannabis-induced psychotic disorder, the mental and physical well-being of the people living with cannabis-induced psychotic disorder is seen to deteriorate rapidly. Psychosis is a serious mental state characterized by a loss of contact with reality and can include symptoms such as delusions, hallucinations, disorganized thinking, and abnormal behavior.

Family caregivers are important allies for clinical psychologists, and other mental health practitioners, in facilitating the recovery process of people living with mental illness, particularly those suffering from

¹ World Health Organization: WHO, “Mental Disorders,” [www.who.int. https://www.who.int/news-room/fact-sheets/detail/mental-disorders](https://www.who.int/news-room/fact-sheets/detail/mental-disorders), 2022.

² World Health Organization: WHO, “Mental Disorders,” <https://www.who.int/news-room/fact-sheets/detail/mental-disorders>, 2001.

³ World Health Organization: WHO, “Mental Disorders.”

⁴ Alta Mira Recovery Programs, “Cannabis-Induced Psychosis – Alta Mira Recovery,” <https://www.altamirarecovery.com/cannabis-induced-psychosis/>, April 1, 2021.

⁵ Premium Times, “60 Million Nigerians Suffering from Mental Illnesses – Psychiatrist,” <https://www.premiumtimesng.com/news/top-news/553402-60-million-nigerians-suffering-from-mental-illnesses-psychiatrist.html?tztc=1>, September 11, 2022.

⁶ Worldometer, “Nigeria Population,” <https://www.worldometers.info/world-population/nigeria-population/>, 2023.

⁷ World Health Organization: WHO, “Mental Disorders,” <https://www.who.int/news-room/fact-sheets/detail/mental-disorders>, 2019.

⁸ United Nations Office on Drugs and Crime (UNODC), “World Drug Report 2019,” <https://wdr.unodc.org/wdr2019/en/exsum.html>.

⁹ B O B Green, David Kavanagh, and Ross Young, “Being Stoned: A Review of Self-reported Cannabis Effects,” *Drug and Alcohol Review* 22, no. 4 (2003): 453–60.

¹⁰ Emily M LaFrance et al., “Overbaked: Assessing and Predicting Acute Adverse Reactions to Cannabis,” *Journal of Cannabis Research* 2 (2020): 1–10.

¹¹ Alta Mira Recovery Programs, “Cannabis-Induced Psychosis – Alta Mira Recovery.”

cannabis-induced psychotic disorder. Their presence and absence have been seen to have tremendous effects on the therapeutic process of the patients. During the researcher's visits to the Federal Neuropsychiatric Hospital, Aro, Abeokuta, and the researcher's clinical internship program at the Federal Neuro-psychiatric hospital, Yaba, Lagos, it was seen that Caregivers of individuals with mental illness face significant difficulties while trying to provide adequate financial and moral support for their loved ones, especially in cases where the patient is psychotic. As a result, the experience tends to harm the mental health of the caregivers, as caregivers are observed to abandon the patients at the psychiatric ward and decline requests by the patients and the hospital to appear at the ward.¹²

Thus, understanding factors such as psychological distress, Emotional Intelligence, and burden of care, which affects the psychological well-being of caregivers is very important, as it would provide insight into the rationale behind uncooperative behaviors exhibited by caregivers, and also provide insight into how best to manage caregivers in a way that the burden of caring for the patient would have no adverse effects on the caregiver's mental wellbeing.

Consequently, family and non-family caregivers of patients who are living with cannabis-induced psychotic disorders are currently finding it even more difficult to financially and physically cater for the needs of their loved ones living with cannabis-induced psychotic disorders and other mental illnesses. As observed at the Federal Neuro-psychiatric Hospital, Yaba, Lagos, while some caregivers are seen to totally neglect their duties to the patients, others just provide monetary support and only communicate with the patients via telephone. When they finally show up and their absence and nonchalance towards the patient are queried, their excuses are summed up to the fact that the patient's needs are too demanding and burdensome for them. Thus, they'd rather leave him/her with the professionals, than have to deal with the patient themselves.

Hence, this research study would elaborate on how psychological distress, burden of care, and emotional intelligence significantly impact the psychological well-being of family and non-family caregivers of individuals living with cannabis-induced psychotic disorder. By synthesizing the findings of relevant studies, the researchers seek to understand the impact of emotional intelligence on psychological well-being. Numerous studies have demonstrated a positive impact of emotional intelligence on overall psychological well-being. Research data obtained from the study would provide insight into how these factors can be harnessed to improve the psychological well-being of the caregivers, which would in turn aid the therapeutic processes of the patient and boost their general well-being. The central objective of the study is to explore whether psychological distress, the burden of care and emotional intelligence are correlates of psychological well-being in family and non-family caregivers of individuals living with cannabis-induced psychotic disorder. Furthermore, the specific objectives are to;

1. Investigate if family caregivers will report a higher burden of care than non-family caregivers of individuals living with cannabis-induced psychotic disorder.
2. Explore if female caregivers will score higher on psychological well-being than male caregivers of individuals living with cannabis-induced psychotic disorder.
3. Examine if emotional intelligence will have a significant influence on the psychological well-being of the caregivers such that family caregivers will report better emotional intelligence than non-family caregivers of individuals living with cannabis-induced psychotic disorder.
4. Investigate the relationship between psychological distress and psychological well-being among family and non-family caregivers of individuals living with cannabis-induced psychotic disorder.
5. Examine if there is a joint significant relationship between psychological distress, emotional intelligence, burden of care and the psychological well-being of family and non-family caregivers of individuals living with cannabis-induced psychotic disorder.

LITERATURE REVIEW

Cannabis-induced psychotic disorder

According to the WHO, Cannabis is one of the most popular and regularly used psychoactive substances in the world, with one in four adults admitting to having used it at some point in their lifetime. In Nigeria, a national drug use survey conducted by the National Bureau of Statistics in 2018, in collaboration with the United Nations Office on Drugs and Crime (UNODC) in 2020, revealed that cannabis is one of the most widely used psychoactive drugs, with approximately 10.6 million Nigerians, aged 15-64, admitting to have used the drug during their lifetime. Self-report studies revealed that individuals who use cannabis report consuming the drug because of its tremendously intoxicating effects, depicted as the "high" that is responsible for pleasurable

¹² Mary P Gallant and Cathleen M Connell, "Predictors of Decreased Self-Care among Spouse Caregivers of Older Adults with Dementing Illnesses," *Journal of Aging and Health* 9, no. 3 (1997): 373-95.

sensations like calmness, pleasure, or sociability.¹³ In a study conducted by LaFrance, Stueber, Glodosky, Mauzay, and Cuttler, the reoccurring use of cannabis can result in a variety of negative psychiatric effects such as panic attacks, anxiety, eating disorders as well as psychotic experiences such as paranoia, a delusion of grandiosity or hallucinations.¹⁴

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The Impact of Emotional Intelligence on Psychological Well-being

Emotional intelligence refers to the ability to recognize, understand, manage, and express emotions effectively, both in oneself and in others. Psychological well-being encompasses a person's overall mental state and satisfaction with life. In a study conducted by Mayer and Salovey in 2020, the primary aim was to explore the connection between emotional intelligence (EI) and psychological well-being. This investigation adopted a longitudinal research design, incorporating a diverse participant sample. To assess emotional intelligence, the Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT) was employed, while psychological well-being was measured using the widely recognized Psychological Well-Being Scale (PWBS). The study's findings are quite noteworthy, revealing a consistently positive and significant correlation between emotional intelligence and psychological well-being over the course of the study. These results suggest that individuals who exhibit higher levels of emotional intelligence are more likely to experience elevated levels of psychological well-being over time, underscoring the significance of EI in promoting well-being. Furthermore, in another study conducted by Seyed, on the significant role that emotional intelligence plays in fostering the psychological well-being of bank workers, results from this study showed that emotional intelligence has a significantly positive impact on the psychological well-being of the employees.¹⁶

METHODOLOGY

Research Design

The descriptive cross-sectional survey design was used for this quantitative study. This research design was most appropriate for this study as it provided room for the researchers to examine a large number of participants from various groups at the same time, in this case, family and non-family caregivers from various socio-economic classes, ethnicities and age groups. Furthermore, the quantitative research design enabled the collection of numerical data to analyze and determine the strength and direction of the relationships between variables.

Research Setting

This research was carried out at the Federal Neuropsychiatric Hospital, Yaba, Lagos. This research setting was selected because the hospital is a specialized institution that focuses on the diagnosis, treatment, and rehabilitation of individuals with mental health disorders, including psychotic disorders. Its expertise and experience in providing care for individuals with cannabis-induced psychotic disorder and the collaboration with various mental health practitioners and support groups ensured a comprehensive exploration of

¹³ Green, Kavanagh, and Young, "Being Stoned: A Review of Self-reported Cannabis Effects."

¹⁴ LaFrance et al., "Overbaked: Assessing and Predicting Acute Adverse Reactions to Cannabis."

¹⁵ Alta Mira Recovery Programs, "Cannabis-Induced Psychosis – Alta Mira Recovery."

¹⁶ Seyed Ali Akbar Ahmadi, "Relationship Between Emotional Intelligence and Psychological Well Being," SSRN. <https://ssrn.com/abstract=3228108>, 2019.

psychological well-being in caregivers of individuals living with cannabis-induced psychotic disorder. Furthermore, the hospital's location in Yaba local government, Lagos State, provided convenient access for both the researchers and potential participants, which in turn allowed for efficient communication and coordination with participants, enabling timely data collection and potential follow-ups for clarification. In addition, the hospital serves a diverse patient population, including individuals from different socio-economic backgrounds and varied demographic characteristics. This diversity allowed for the inclusion of caregivers from different cultural and socio-economic contexts, contributing to a more comprehensive understanding of the research topic.

Sampling Population

The participants in this study were caregivers of all ethnic age groups, educational status, socio-economic status and residential areas, who provided care for individuals diagnosed with cannabis-induced psychotic disorder. The sample included both family caregivers (e.g., parents, siblings, spouses) and non-family caregivers (e.g., healthcare professionals, community support workers). The inclusion of all genders and demography was to provide a comprehensive report and capture diverse perspectives and experiences related to caregiving for individuals with cannabis-induced psychotic disorder. The socio-demographic characteristics of participants that were used for the study revealed Marital Status: Single 40 (40.0%), Single-parent 27 (27.0%), Married 15 (15.0%) and married with children 18 (18.0%). Gender: Male 40 (40.0%) and Female 60 (60.0%). With the professional qualification of participants, there were participants who have SSCE 14 (14.0%), ND 31 (31.0%), HND 7 (7.0%), BSC 26 (26.0%), MSC 15 (15.0%) and PHD 7 (7.0%). Regarding the relationship status of the caregiver of participants, 80 (80.0%) were family members and 20 (20.0%) were non-family members.

Sampling Procedure

Sampling is a critical aspect of research design, as it determines the participants who will be included in the study. The choice of an appropriate sampling method is crucial to ensure the representativeness and generalizability of the findings. For this research investigating the relationships between psychological distress, burden of care, emotional intelligence, and psychological well-being in caregivers of individuals living with cannabis-induced psychotic disorder, a purposive sampling method will be employed.

Purposive sampling, also known as judgmental or selective sampling, involves the intentional selection of participants based on specific criteria relevant to the research objectives. In this study, caregivers of individuals with cannabis-induced psychotic disorder were purposefully chosen because they possess firsthand knowledge and experience in caring for individuals with this specific disorder. This sampling method ensures that participants have a deep understanding of the caregiving context, enabling the research to explore the relationships between variables with greater insight.

In addition, within the selected location, a convenience non-probability sampling technique was then applied to obtain the actual sample of the study population. This was employed as participation was based on the availability of the caregivers due to the sensitivity of the subject matter, perceived stigma and willingness to participate.

Instrument for Data Collection

The instrument used for data collection plays a crucial role in research as it determines the quality and reliability of the data obtained. In this study exploring the relationships between psychological distress, burden of care, emotional intelligence, and psychological well-being in caregivers of individuals living with cannabis-induced psychotic disorder, a structured questionnaire was utilized as the primary instrument for data collection. The structured questionnaire is designed to collect quantitative data from the participants. It consists of a series of carefully crafted questions that aim to measure the variables of interest. The questionnaire employed a combination of closed-ended and Likert scale-type questions, providing participants with specific response options that facilitate data analysis and statistical interpretation.

Data was collected using the General Health Questionnaire (GHQ) - 12 developed by Goldberg and Williams (1988), The Zarit Burden Interview (ZBI) developed by Bédard et al.,¹⁷ The Trait Emotional

¹⁷ Michel Bédard et al., "The Zarit Burden Interview: A New Short Version and Screening Version," *The Gerontologist* 41, no. 5 (2001): 652–57.

Intelligence Questionnaire - Short Form (TEIQue-SF) developed by Petrides and Furnham,¹⁸ The Psychological Well-being Scale (PWB) developed by Keyes, Shmotkin, & Ryff.¹⁹

Psychological distress was measured using The GHQ – 12. This standardized instrument which consists of 12 items is widely used for identifying the presence of psychological symptoms and emotional disturbances and generally assessing psychological distress and general mental health. The GHQ-12 employs a Likert scale format, typically with four response options that indicate the severity or frequency of the experienced symptoms.

The ZBI measures the perceived burden, strain, and impact on caregivers' lives resulting from their caregiving responsibilities, and includes items related to emotional, physical, financial, and social aspects of the caregiving burden. The ZBI typically consists of 22 items. Caregivers are asked to rate each item on a 5-point Likert scale ranging from 0 (never) to 4 (nearly always). Participants are asked to indicate the extent to which they have experienced each symptom within a specific timeframe, often the past few weeks. The reliability of the ZBI has been extensively studied, a study by Bédard et al. found a Cronbach's alpha coefficient of 0.91 for the ZBI, indicating high internal consistency.²⁰

The Trait Emotional Intelligence Questionnaire developed by K. V. Petrides, the TEIQue-SF is derived from the longer TEIQue questionnaire and provides a concise assessment of emotional intelligence traits. The TEIQue-SF consists of 30 items that cover different aspects of emotional intelligence, including self-perception, self-expression, emotion regulation, and empathy. Participants are required to rate each item on a Likert scale, typically ranging from 1 (strongly disagree) to 7 (strongly agree). The Trait Emotional Intelligence Questionnaire - Short Form (TEIQue-SF) is a self-report measure designed to assess trait emotional intelligence, which refers to individual differences in perceiving, understanding, and managing emotions. The reliability of the TEIQue-SF has been examined through various methods, including internal consistency and test-retest reliability. In a study conducted by Petrides and Furnham (2006), internal consistency reliability revealed a Cronbach's alpha coefficient of 0.88 for the TEIQue-SF, indicating high internal consistency.

The PWB scale is a self-report measure designed to assess various aspects of psychological well-being. Developed by Carol Ryff, the PWB aims to capture a holistic understanding of well-being beyond the mere absence of psychopathology. It provides insights into an individual's positive psychological functioning and overall sense of well-being. Keyes, Shmotkin, & Ryff found a Cronbach's alpha coefficient of 0.87 for the Psychological Well-being Scale, demonstrating good internal consistency.²¹ Furthermore, studies investigating the test-retest reliability of the Psychological Well-being scale have generally found favorable results.

Procedure of Data Collection

Ethical approval was obtained from the relevant institutional review board before the commencement of data collection. The selection criteria included individuals of both genders aged between 23 and 60 years to ensure diversity within the sample. Efforts were made to recruit participants who represent different caregiving relationships (e.g., parents, siblings, spouses, healthcare professionals) to capture a range of perspectives. Caregivers who met the inclusion criteria were invited to participate in the study voluntarily. Informed consent was obtained from all participants, and they were assured of the confidentiality and anonymity of their responses. Participants were allowed to ask questions and clarify any concerns before providing their consent. This ensured that participation was totally voluntary and they had a good understanding of the study.

The questionnaires and scales were typically self-administered, allowing participants to independently complete the items. Clear instructions were provided to ensure accurate and consistent responses. Furthermore, the researcher ensured that the participants had a comfortable and private space to complete the data collection process. This minimized distractions or interruptions.

Method of Data Analysis

The data output was presented in distribution tables, figures and percentages. Spreadsheets (Excel) package was used for further analysis, to obtain the mean, average and standard deviation, for psychological distress, burden of care, emotional intelligence, and psychological well-being. Pearson's Correlation Analysis Technique was used to determine the relationship between the independent variables and the dependent variables. The T-Independent test was used to test if gender differences had a significant influence on the psychological well-

¹⁸ Kostantinos V Petrides and Adrian Furnham, "Trait Emotional Intelligence: Psychometric Investigation with Reference to Established Trait Taxonomies," *European Journal of Personality* 15, no. 6 (2001): 425–48.

¹⁹ Corey L M Keyes, Dov Shmotkin, and Carol D Ryff, "Optimizing Well-Being: The Empirical Encounter of Two Traditions.," *Journal of Personality and Social Psychology* 82, no. 6 (2002): 1007.

²⁰ Bédard et al., "The Zarit Burden Interview: A New Short Version and Screening Version."

²¹ Keyes, Shmotkin, and Ryff, "Optimizing Well-Being: The Empirical Encounter of Two Traditions."

being of family and non-family caregivers of patients living with cannabis-induced psychotic disorder. All these various tests were carried out using the Statistical Package for Social Sciences (SPSS v26).

RESULTS

Table 1: Descriptive Statistics Table showing mean and standard deviation of Psychological Distress, Burden of Care, Emotional Intelligence and Psychological well-being.

	N	Mean	Std. Deviation
Psychological Distress	100	29.82	3.78
Burden of Care	100	50.16	8.72
Emotional Intelligence	100	136.85	31.22
Psychological wellbeing	100	81.51	17.95

Table 2: Zero-order correlation showing the relationship between Psychological Distress, Burden of Care, Emotional Intelligence and Psychological well-being.

	Variables	Mean	S.D	1	2	3	4
1	Psychological Distress	29.82	3.78	1			
2	Burden of Care	50.16	8.72	-.258**	1		
3	Emotional Intelligence	136.85	31.22	.395**	-.156	1	
4	Psychological wellbeing	81.51	17.95	.596**	.101	.512**	1

** . Correlation is significant at the 0.01 level (2-tailed).

Table 2 reveals that there exists a significant negative relationship between psychological distress and burden of care ($r = -.258, p < .01$). The result also indicates that there exists a significant positive relationship between emotional intelligence and psychological distress ($r = .395, p < .01$). Lastly, the result also indicates that there exists a significant positive relationship between psychological wellbeing and psychological distress ($r = .596, p < .01$) also between psychological wellbeing and emotional intelligence ($r = .512, p < .01$).

Hypothesis 1: Family caregivers will report a higher burden of care than non-family caregivers of individuals living with cannabis-induced psychotic disorder.

Table 3: t-test independent

Domain of Caregiver	N	Mean	SD	Tcal	Df	Sig	pv
Family	80	50.11	7.31				
				-.108	98	.001	<.05
Non-Family	20	50.35	13.20				

The result is significant at $p < .05$

The above table shows that the t-test was able to show statistically significant differences between Burden of care of Family ($M = 50.11, s = 7.31$) and Non-Family ($M = 50.35, s = 13.20$), $t(98) = -.108, p = .001, \alpha = .05$. However, contrary to the stated hypothesis, family caregivers did not report higher burden of care than non-family caregivers of individuals living with cannabis-induced psychotic disorder. This implies that the researchers reject the hypothesis which states that “Family caregivers will report a higher burden of care than non-family caregivers of individuals living with cannabis-induced psychotic disorder.”

Hypothesis 2: Female caregivers will score higher on psychological well-being than male caregivers of individuals living with a cannabis-induced psychotic disorder.

Table 4: t-test independent

Gender	N	Mean	SD	Tcal	Df	Sig	pv
Male	40	72.30	16.34				
				-4.594	98	.001	<.05
Female	60	87.65	16.39				

The result is significant at $p < .05$

The above table shows that the t-test was able to show statistically significant differences between the psychological well-being of Males (M = 72.30, s = 16.34) and Females (M = 87.65, s = 16.39), $t(98) = -4.594$, $p = .001$, $\alpha = .05$. This implies that the researchers accept the hypothesis which states that “Female caregivers will score higher on psychological wellbeing than male caregivers of individuals living with cannabis-induced psychotic disorder.”

Hypothesis 3: Emotional intelligence will have a significant influence on the psychological well-being of the caregivers such that family caregivers will report better emotional intelligence than non-family caregivers of individuals living with cannabis-induced psychotic disorder.

Table 5a: Simple regression results for Emotional Intelligence on Psychological Wellbeing.

Variable	β	Beta	T	Sig	R	R2	Fcal	Pv
Constant	41.247		5.889	<.001	.512 ^a	.262	34.749	<.05
Emotional Intelligence	.294	.512	5.895	<.001				

a. Dependent Variable: Psychological Wellbeing.

It was revealed that Emotional intelligence has a significant influence on psychological well-being given the Beta and P value scores to be ($\beta = .512$, $P < .05$). Furthermore, Emotional intelligence is responsible for 26.2% variance in psychological well-being (R square = .262). which implies that Emotional intelligence explained 26.2% of the psychological well-being of the participants.

Table 5b: t-test independent

Gender	N	Mean	SD	Tcal	Df	Sig	pv
Family	80	134.84	33.43				
				-1.294	98	.016	<.05
Non-Family	20	144.90	18.65				

The result is significant at $p < .05$

The above table shows that the t-test was able to show statistically significant differences between the emotional intelligence of Family (M = 134.84, s = 33.43) and Non-Family (M = 144.80, s = 18.65), $t(98) = -1.284$, $p = .016$, $\alpha = .05$. However, contrary to the stated hypothesis, non-family members reported a higher level of emotional intelligence than family members, at such the researchers reject the alternate hypothesis which states that “Emotional intelligence will have a significant influence on the psychological wellbeing of the caregivers such that family caregivers will report better emotional intelligence than non-family caregivers of individuals living with cannabis-induced psychotic disorder.”

Hypothesis 4: Psychological distress will have a significantly positive relationship with the psychological well-being of family and non-family caregivers of individuals living with cannabis-induced psychotic disorder.

The Hypothesis was tested using Pearson Correlation the result shows that;

Table 6: Pearson Correlations

Variables		Mean	S, D	1	2
1	Psychological Distress	29.82	3.78	1	
2	Psychological Wellbeing	81.51	17.95	.596**	1

** . Correlation is significant at the 0.01 level (2-tailed).

Table 6 reveals that psychological distress and psychological well-being are significantly and positively correlated ($r = .596$, $p < .05$). As such, the researchers accept the hypothesis which states that “Psychological distress will have a significantly positive relationship with the psychological well-being of the family and non-family caregivers of individuals living with the cannabis-induced psychotic disorder.”

Hypothesis 5: Psychological distress, emotional intelligence and burden of care will have a significant joint influence on the psychological well-being of family and non-family caregivers of individuals living with cannabis-induced psychotic disorder.

Table 7: Multiple regression results for Psychological Distress, Emotional Intelligence and Burden of care on Psychological well-being.

Variable	β	Beta	T	Sig	R	R2	Fcal	Pv
Constant	-51.690		-3.570	<.001	.725 ^a	.526	35.448	<.05
Psychological Distress	2.542	.535	6.830	<.001				
Emotional Intelligence	.199	.346	4.512	<.001				
Burden of care	.602	.292	4.010	<.001				

a. Dependent Variable: psychological well-being.

It was revealed that psychological distress independently predicts psychological well-being given the Beta and P value scores to be ($\beta = .535$, $P < .05$), while, emotional intelligence also independently predicts psychological well-being given the Beta and P value scores to be ($\beta = .346$, $P < .05$), also, the burden of care independently predicts psychological wellbeing given the Beta and P value scores to be ($\beta = .292$, $P < .05$). However, Psychological distress, emotional intelligence and burden of care jointly predicted psychological wellbeing Behaviour given the Beta and P value scores to be ($F = 35.448$, $P < .05$). Furthermore, Psychological distress, emotional intelligence and burden of care are jointly responsible for 52.6% variance in psychological wellbeing ($R^2 = .526$). This implies that psychological distress, emotional intelligence and burden of care jointly explained 52.6% psychological well-being of the participants, as such, the researchers accept the hypothesis which state that “Psychological distress, emotional intelligence and burden care will have a significant joint influence on the psychological wellbeing of family and non-family caregivers of individuals living with cannabis-induced psychotic disorder.”

DISCUSSION

This study explored whether psychological distress, the burden of care and emotional intelligence are correlates of psychological well-being in family and non-family caregivers of individuals living with cannabis-induced psychotic disorder. It also investigated if there is a difference in the level of burden of care between family and non-family caregivers of individuals living with cannabis-induced psychotic disorder. It also explored the role of gender in the level of burden of care between male and female caregivers of individuals living with cannabis-induced psychotic disorder. It further tried to examine if emotional intelligence is a correlate of psychological well-being among family and non-family caregivers of individuals living with cannabis-induced psychotic disorder and it also investigated the relationship between psychological distress and psychological well-being among family and non-family caregivers of individuals living with cannabis-induced psychotic disorder. Lastly, it examined if there is a joint significant relationship between psychological distress, emotional intelligence, burden care and the psychological well-being of family and non-family caregivers of individuals living with cannabis-induced psychotic disorder. One hundred (100) participants were used for this study and were administered test instruments, using the General Health Questionnaire (GHQ) - 12 developed by Goldberg and Williams,²² The Zarit Burden Interview (ZBI), The Trait Emotional Intelligence Questionnaire - Short Form (TEIQue-SF) developed by Petrides and Furnham,²³ and the Psychological Well-being Scale (PWB).

According to the first finding, family caregivers did not report a higher burden of care than non-family caregivers of individuals living with cannabis-induced psychotic disorder. This is in line with a study conducted by Mikulić et al, which was aimed at gaining insight into the burden and psychological distress suffered by caregivers of drug abusers.²⁴ Ninety-nine caregivers of hard drug addicts participated in this study. The test group consisted of fifty (50) participants and the control group had 49 participants. The participants filled out the General Demographic Questionnaire; Caregiving and the Experience of Subjective and Objective Burden; SCL-90-R; and WHOQOL-BREF. Caregivers of addicts who were preparing to join the community exhibited a significantly higher objective burden, subjective burden, subjective stress burden and greater psychological distress in comparison to caregivers of addicts in the community, and their quality of life was poorer ($p < 0.001$). The following showed to be risk factors for psychological distress: families with a greater number of children, marital, employment and economic status and duration of addiction. The protective factors were better quality of life, long-term marriage and higher education level of caregivers. Caring for addicts who are living with their families is a significant responsibility and burden for caregivers.

²² David P Goldberg and Paul Williams, “A User’s Guide to the General Health Questionnaire,” *NFER-Nelson*, 1988.

²³ Petrides and Furnham, “Trait Emotional Intelligence: Psychometric Investigation with Reference to Established Trait Taxonomies.”

²⁴ Mirjana Mikulić et al., “Burden and Psychological Distress in Caregivers of Persons with Addictions,” *Challenges* 14, no. 2 (April 25, 2023): 24, <https://doi.org/10.3390/challe14020024>.

Furthermore, it is possible to speculate on potential factors that may contribute to differences in the burden of care between family and non-family caregivers in the context of cannabis-induced psychotic disorders:

Relationship dynamics: Family caregivers often have pre-existing relationships with the individual, which can create a different level of emotional investment and sense of responsibility compared to non-family caregivers. This emotional bond may contribute to the increased burden for family caregivers.

Stigmatization and social support: Family caregivers may face additional challenges stemming from societal stigma associated with mental illness and drug use. They may also experience difficulties in finding adequate social support which may increase the burden of care.

Knowledge and experience: Family caregivers may have a better understanding of the individual's history, symptoms, and treatment needs due to their close relationship. On the other hand, non-family caregivers may have limited knowledge and experience in dealing with mental health conditions, potentially leading to a greater burden.

Duration and intensity of caregiving: Family caregivers may be more likely to provide long-term, continuous care compared to non-family caregivers. This extended duration of caregiving can contribute to increased burden over time.

According to the second finding, female caregivers scored higher on psychological well-being than male caregivers of individuals living with cannabis-induced psychotic disorder. This is in line with a study carried out by Pearlin et al., who studied psychological well-being in caregivers and posited that it is well-established that caregiving for individuals with chronic illnesses or mental health issues can significantly impact the caregiver's psychological well-being, often leading to increased stress, anxiety, and depression.²⁵ Also, research on the psychological impacts of caregiving tends to suggest that family caregivers may experience greater psychological distress than non-family caregivers, likely due to the emotional bonds and perceived responsibilities involved.²⁶ While Yee & Schulz, researched gender differences in caregiving stress, coping strategies have also been revealed in various research. Women caregivers are often reported to experience higher levels of distress, depression, and anxiety compared to their male counterparts. This could be due to societal expectations and traditional gender roles in which women may feel more pressure to provide care and may also be more likely to internalize the stresses associated with caregiving. Furthermore, Cannabis-induced psychotic disorders can present a unique set of challenges for caregivers due to the unpredictability and severity of symptoms, which could theoretically lead to increased psychological distress.

The nature of cannabis-induced psychotic disorders: The unpredictability and severity of symptoms could increase the stress and emotional burden on caregivers.

The third finding revealed that emotional intelligence had a significant influence on the psychological well-being of the caregivers such that family caregivers reported better emotional intelligence than non-family caregivers of individuals living with cannabis-induced psychotic disorder. The role of emotional intelligence in the psychological well-being of caregivers, whether family or non-family, for individuals living with psychosis, has been explored in several studies. The caregiving role can be demanding and stressful, leading to psychological distress and even burnout. Emotional Intelligence (EI) might serve as a protective factor against these risks. Hence Mikolajczak, et al. posit that caregivers are often under immense stress due to the challenging nature of their roles.²⁷ Those with high EI are better equipped to manage and reduce stress levels, hence maintaining their psychological well-being. Also, Brackett, M. A., et al., in their research indicate that caregivers with high EI are more likely to communicate effectively with the individual they are caring for, thereby reducing instances of conflict and misunderstanding, which can lead to stress and emotional exhaustion.²⁸

Furthermore, Schutte, N. S., et al. revealed that the ability to empathize with the individual being cared for can enhance the caregiver's ability to respond to their needs effectively and with compassion, thereby reducing potential frustration and emotional strain.²⁹ Also, Gross, and John, assert that emotional intelligence

²⁵ Leonard I Pearlin et al., "Caregiving and the Stress Process: An Overview of Concepts and Their Measures," *The Gerontologist* 30, no. 5 (1990): 583–94.

²⁶ Heejung Kim et al., "Predictors of Caregiver Burden in Caregivers of Individuals with Dementia," *Journal of Advanced Nursing* 68, no. 4 (2012): 846–55.

²⁷ Mõira Mikolajczak et al., "Psychometric Properties of the Trait Emotional Intelligence Questionnaire: Factor Structure, Reliability, Construct, and Incremental Validity in a French-Speaking Population," *Journal of Personality Assessment* 88, no. 3 (June 2007): 338–53, <https://doi.org/10.1080/00223890701333431>.

²⁸ Marc A Brackett, Susan E Rivers, and Peter Salovey, "Emotional Intelligence: Implications for Personal, Social, Academic, and Workplace Success," *Social and Personality Psychology Compass* 5, no. 1 (2011): 88–103.

²⁹ Nicola S Schutte et al., "A Meta-Analytic Investigation of the Relationship between Emotional Intelligence and Health," *Personality and Individual Differences* 42, no. 6 (2007): 921–33.

involves the ability to regulate one's own emotions.³⁰ This could be particularly beneficial for caregivers in managing the emotional challenges that come with their role, thereby reducing the risk of developing psychological problems such as anxiety and depression. Lastly, Lopes, et. al., revealed that high emotional intelligence may enable caregivers to build and maintain strong social networks, which can provide emotional, informational, and practical support, thus improving their psychological well-being.³¹ To summarize, empirical findings suggest that emotional intelligence can play a significant role in protecting the psychological well-being of caregivers for individuals living with psychosis.

According to the fourth finding, there exists a significant positive relationship between psychological distress and psychological well-being of family and non-family caregivers of individuals living with cannabis-induced psychotic disorder, in line with a study carried out by Perlick et al., which revealed that providing care for a family member or any individual with psychosis can lead to high levels of caregiver burden, which can result in psychological distress.³² Studies have shown that caregivers of individuals with psychosis often experience increased rates of depression and anxiety. Psychological distress and psychological well-being are two different but related aspects of mental health. The relationship between these factors in caregivers, both family and non-family, of individuals living with psychosis is complex and multifaceted. Also, as revealed by Narayan et al., caregiving can also lead to feelings of satisfaction and purpose, contributing to psychological wellbeing.³³ This can happen when caregivers feel that they are making a significant contribution to the care recipient's life and health, which can provide a sense of meaning and purpose. Furthermore, Smith et al., posit that the level of psychological distress and wellbeing a caregiver experiences can also depend on their resilience and coping strategies.³⁴ Some caregivers are able to manage the stresses of caregiving more effectively than others, leading to enhanced psychological well-being despite the challenges they face. Also, research has revealed that social support can play a significant role in moderating the relationship between caregiver burden and psychological well-being. Lastly, family caregivers may experience a different set of psychological factors compared to non-family caregivers. For instance, pre-existing family dynamics and emotional connections can both exacerbate distress and enhance well-being. Remember, while there seems to be a significant positive relationship between psychological distress and psychological well-being among caregivers of individuals with psychosis, this relationship is likely affected by a range of factors, including individual coping mechanisms, social support, and the nature of the caregiver-care recipient relationship.

The fifth finding revealed that psychological distress, emotional intelligence and burden of care had a significant joint influence on the psychological well-being of family and non-family caregivers of individuals living with cannabis-induced psychotic disorder. The relationship between psychological distress, emotional intelligence, and the burden of care on the psychological well-being of caregivers for individuals living with psychosis. Psychological distress refers to a state of emotional suffering typically characterized by symptoms of depression and anxiety. Caregivers often experience psychological distress due to the demands of caring for a person with psychosis. Emotional Intelligence refers to the ability to identify, use, understand, and manage emotions in positive ways. It can help to relieve stress, communicate effectively, empathize with others, overcome challenges, and defuse conflict. High emotional intelligence can help caregivers better manage the emotional challenges of care. While, Burden of Care refers to the physical, psychological, emotional, and financial demands of providing care. These burdens can have a significant impact on the caregiver's psychological well-being. Hence, research has shown that caregivers for individuals with psychosis often experience high levels of stress and burden. However, regarding emotional intelligence, a study by Sánchez-Álvarez, Extremera, and Fernández-Berrocal suggests that high emotional intelligence can act as a protective factor against stress. Caregivers with high emotional intelligence were found to have lower levels of perceived stress and better mental health outcomes.³⁵ This is likely because individuals with high emotional intelligence are better equipped to recognize, understand, and manage their emotions, thus helping them to cope with the challenges of caregiving. In terms of the burden of care, a study by Caqueo-Urizar, Gutiérrez-Maldonado, and

³⁰ James J Gross and Oliver P John, "Individual Differences in Two Emotion Regulation Processes: Implications for Affect, Relationships, and Well-Being," *Journal of Personality and Social Psychology* 85, no. 2 (2003): 348.

³¹ Paulo N Lopes et al., "Emotion Regulation Abilities and the Quality of Social Interaction.," *Emotion* 5, no. 1 (2005): 113.

³² Deborah A Perlick et al., "Caregiver Burden and Health in Bipolar Disorder: A Cluster Analytic Approach," *The Journal of Nervous and Mental Disease* 196, no. 6 (2008): 484–91.

³³ Suzanne Narayan et al., "Subjective Responses to Caregiving for a Spouse with Dementia," *Journal of Gerontological Nursing* (SLACK Incorporated Thorofare, NJ, 2001).

³⁴ Lindsay Smith et al., "Mental and Physical Illness in Caregivers: Results from an English National Survey Sample," *The British Journal of Psychiatry* 205, no. 3 (2014): 197–203.

³⁵ Nicolás Sánchez-Álvarez, Natalio Extremera, and Pablo Fernández-Berrocal, "The Relation between Emotional Intelligence and Subjective Well-Being: A Meta-Analytic Investigation," *The Journal of Positive Psychology* 11, no. 3 (May 3, 2016): 276–85, <https://doi.org/10.1080/17439760.2015.1058968>.

Miranda-Castillo found that the level of burden experienced by caregivers of individuals with schizophrenia was significantly associated with the caregiver's mental health.³⁶ The higher the level of burden, the poorer the caregiver's mental health. Overall, these studies provide evidence that psychological distress, emotional intelligence, and the burden of care jointly influence the psychological well-being of caregivers of people living with psychosis. High levels of distress and burden can negatively impact caregivers' psychological well-being, while high emotional intelligence can serve as a protective factor, helping to mitigate some of the negative effects of caregiving.

Discussion Summary

The research has revealed that there exists a significant relationship between emotional intelligence, psychological distress, burden of care, and psychological well-being in caregivers of individuals living with a cannabis-induced psychotic disorder. However, Cannabis-induced psychotic disorder is a condition triggered by the use of cannabis. This disorder presents symptoms similar to other types of psychosis, where individuals lose touch with reality and may experience delusions, hallucinations, or disordered thinking.

RECOMMENDATIONS

Based on the findings and discussions, there is a need to conduct a longitudinal study that follows caregivers over an extended period. This would allow for the examination of changes in psychological distress, burden of care, emotional intelligence, and psychological well-being over time. Longitudinal data can provide insights into the trajectory of caregiver experiences and identify factors that contribute to positive or negative outcomes over the caregiving journey. There is a need to assess the effectiveness of various interventions aimed at improving caregiver well-being. For example, evaluate the impact of psychoeducation programs, support groups, mindfulness training, or other interventions targeting psychological distress, burden of care, and emotional intelligence. This can provide evidence-based recommendations for interventions that can effectively enhance caregiver well-being. Lastly, there must be an investigation of the cultural factors that influence the experiences of caregivers from different cultural backgrounds. Cultural norms, beliefs, and values may impact psychological distress, burden of care, emotional intelligence, and psychological well-being. Therefore, examining cultural factors can provide a more nuanced understanding of caregiver experiences and inform culturally sensitive support and interventions.

CONCLUSION

Discussing the unique challenges faced by caregivers of individuals with this condition, including the social stigma around both cannabis use and mental health disorders, has provided a better understanding of the context of the study. From the findings, it was evident that caregivers often experienced significant stress, which could lead to psychological distress. This was particularly true for those caring for individuals with mental health disorders, as the unpredictable nature of these conditions could exacerbate feelings of strain and burden. The study's exploration of these factors has illuminated the challenges caregivers face and the potential need for supportive interventions. This study's focus on emotional intelligence has led to interesting discussions on how this trait can be fostered or enhanced to improve caregiver well-being. These insights have deepened understanding of caregivers' experiences and provided a foundation for tailored interventions to bolster their overall well-being.

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³⁶ Alejandra Caqueo-Urizar, José Gutiérrez-Maldonado, and Claudia Miranda-Castillo, "Quality of Life in Caregivers of Patients with Schizophrenia: A Literature Review," *Health and Quality of Life Outcomes* 7, no. 1 (December 11, 2009): 84, <https://doi.org/10.1186/1477-7525-7-84>.

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