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Research Article

Mental Health Literacy and Psychological Help-Seeking Attitudes among University Students: A Moderated Mediation Model of Distress Disclosure and Religiosity

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Abstract

The university experience challenges students mentally and physically, increasing their need for psychological support from trained professionals at universities' counselling and psychological support centres. However, the mechanisms driving favourable attitudes toward seeking professional psychological help remain insufficiently explored. Consequently, this study investigates the relationship between mental health literacy (MHL) and psychological help-seeking attitudes (PHSA) through a moderated mediation model involving distress disclosure (DD) and religiosity. The study sampled 320 undergraduates from the Abraka campus of Delta State University, Nigeria. The sample consists of 116(36.3%) males and 204(63.7%) females with an average age of 20.75 years (SD= ±2.51). The data was collected using standardised instruments with established psychometric properties. A regression-based analysis complemented by model 4 and model 14 of the PROCESS Macro plug-in tool through version 25 of the IBM-SPSS Statistics was adopted for testing the hypotheses. The results reveal that MHL and DD positively and significantly predict PHSA. Additionally, MHL positively and significantly predicts DD. The analysis confirms that DD mediates the relationship between MHL and PHSA, while religiosity moderates the relationship between DD and PHSA. The index of moderated mediation is also significant. Further analysis indicates that the positive impact of MHL on PHSA through DD decreases as religiosity increases and increases as religiosity decreases. These findings emphasise the importance of MHL, DD, and religiosity in shaping PHSA. The study highlights key barriers to seeking professional psychological help and provides valuable insights for designing mental health interventions in higher institutions. Based on these findings, the study concludes that policymakers should consider MHL, DD, and religiosity when developing strategies to enhance favourable PHSA.

Keywords:
Distress disclosure • Mental health literacy • Psychological help-seeking attitudes • Religiosity • University students

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Introduction

Health is considered a condition of total physical, mental, and social well-being and not only the absence of sickness or infirmity (World Health Organisation, 2024). Mental health is an essential component of overall health. This is evident given the extensive research conducted on mental health and general psychological well-being (e.g., Baklola et al., 2024; Duran & Ergun, 2023; Rafal et al., 2018). According to the World Health Organisation (WHO), mental health is a condition of well-being in which individuals can reach their full potential, manage everyday stressors, be productive, and give back to their community. Nigeria is one of the nations most affected by mental health issues, with a significant amount of Nigerians suffering from various mental illnesses (Onyemelukwe, 2016; Suleiman, 2017; Wada et al., 2021). Nigeria ranks as the fifth most suicide-prone country in the world due to the prevalence of mental illness (Suleiman, 2017). Despite its crucial role in health and well-being, mental health has received inadequate attention in Nigeria. According to estimates by the WHO in 2017, 450 million people worldwide suffer from a mental problem, and 25% of people will experience mental disease at some point in their lives. Hence, no one is immune to mental illness. Mental health issues can affect anyone, irrespective of their age, gender, race, social position, or financial status (Lee et al., 2023).

The university experience can be physically and mentally challenging for young people. Research has shown that mental health issues such as anxiety and depression are prevalent among young adults aged 18-30 (Li et al., 2018; Solmi et al., 2022). Mental health illnesses are often less evident, and many young people remain unaware of the various mental health disorders that exist (Lee et al., 2023). As a result, prejudice, stigma, misconceptions, and concealment of mental health issues remain widespread. In 2019, the Africa Polling Institute (API) and EpiAFRIC conducted a survey on mental health in Nigeria. The results revealed a low level of mental health awareness in Nigeria, with most respondents attributing mental health disorders to causes such as drug abuse, possession by evil spirits, and brain illness. The majority of patients are referred to prayer houses for spiritual interventions. Notably, prior studies have shown that Nigerians prefer to handle their suffering or turn to unofficial resources (such as friends, family, religious communities, and traditional healers) for assistance rather than seeking help from a mental health professional (Labinjo et al., 2021). Nigerians are highly spiritual and religious people, and those with mental health issues frequently go to faith leaders first, believing that spirituality and religion can be helpful in the healing process.

While research suggests that religion and spirituality may positively influence mental health by fostering positive beliefs, a sense of community and support, and constructive religious coping mechanisms, they also pose challenges. Poor religious coping mechanisms, misunderstandings, miscommunications, and harmful perspectives can negatively impact mental health (Garssen et al., 2021; Weber &

Pargament, 2014). Recognising the role of trained mental health professionals remains the best fix to mental health issues. Promoting mental health literacy (MHL) and encouraging the need to seek professional psychological help are essential to ensuring that affected adults and young people do not have to suffer in silence. The importance of information regarding what constitutes mental health cannot be overstated. This is because information builds knowledge about mental health and, in turn, influences people's attitude towards mental health-related issues.

Literature Gap Analysis

Research conducted using various methodologies across different countries in Sub-Saharan Africa has highlighted a lack of knowledge regarding the prevention and identification of mental health disorders, the provision of initial support to individuals exhibiting mental health issues, and the available forms of help that are accessible to the general public, as well as specific age groups. Additionally, studies conducted in Nigeria have shown the need to raise MHL among young people, as the knowledge and awareness of mental health illnesses remain poor (Aluh et al., 2018; Aluh et al., 2019; Lawal et al., 2024). These are possible indicators that young people are unlikely to seek the help of a psychologist or counsellor when they are going through mental distress. Thus, this study focuses on understanding and explaining young people's psychological help-seeking attitudes (PHSA).

PHSA is the cognitive, emotional, and behavioural tendencies toward professional psychological help-seeking behaviour when individuals experience psychological problems or diseases (Mackenzie et al., 2004; Yang et al., 2023). An individual's positive or negative response to any mental health issue is largely influenced by their attitude toward getting psychological help. Understanding PHSA among Nigerian students could have implications for the development and provision of psychological and counselling services in higher educational institutions across Nigeria, as attitudes have been proven to be substantially correlated with actual help-seeking (Hlongwane & Juby, 2023).

A few observations in the literature highlight the need for this study. The first observation relates to the recurring antecedents of PHSA that have been frequently examined in the literature. Despite a significant increase in the body of research on the antecedents of PHSA, the majority of studies have concentrated on the topic of MHL with less emphasis on other potential factors that could promote or hinder PHSA. Studies examining the effect of MHL and distress disclosure (DD) on PHSA are scarce in the Nigerian literature and other sub-Saharan African countries. There is a paucity of literature examining MHL and DD as possible reasons for seeking professional psychological help in Nigeria. At a more complex level, the mediating role of DD and the moderating role of religiosity in the proposed mediation of DD on the relationship between MHL and PHSA remain unclear.

Furthermore, there exists a limited number of studies utilising the social cognitive theory to explain the interplay among the variables examined in this model. By adopting this framework - specifically the theory of planned behaviour - the study captures the critical roles of the social environment and the individual cognitive processes in seeking professional psychological assistance. Therefore, understanding the factors and inter-mechanisms associated with professional PHSA is crucial. Consequently, this study aims to examine the associated factors (MHL and DD) of PHSA, and the moderating effects of young people's levels of religiosity on the nexus among MHL, DD, and PHSA.

Theoretical Background

Numerous social cognitive theories have been developed to comprehend health behaviours. These include the informational-motivational-behavioural model, the theory of planned behaviour (TPB), and the health belief model. This study adopts the theory of planned behaviour to explain possible antecedents and consequences of PHSA among university students. The TPB paradigm (Ajzen, 1985; Ajzen & Fishbein, 1980) is strongly connected to the factors that predict psychological help-seeking intentions, such as attitudes, perceived group norms, and perceived behavioural control. The theory states that people believe specific behaviours will lead to particular outcomes. Individuals form attitudes based on how they assess these beliefs as favourable or unfavourable (Ajzen, 1985; Ajzen & Fishbein, 1980). Stated differently, forming an intention to engage in a behaviour is a prerequisite for the behaviour to occur. The likelihood of a behaviour increases with the strength of the intention. Positive attitudes, subjective norms and strong behavioural control boost an individual's intention to carry out the behaviour (Ajzen, 2006; Shukri et al., 2016).

An individual's PHSA indicates how they feel about it, whether positively or negatively. An individual's interaction with their surroundings is expressed through their subjective norm. It is the perceived external pressure that a person feels when engaging in a behaviour. Thus, it may be claimed that an individual's behaviour in seeking psychological help is largely determined by the expectations and judgments of their social surroundings (Aras & Peker, 2024). Perceived behavioural control refers to an individual's belief in their ability to perform a certain behaviour. The intention to engage in a behaviour is increased when a person feels confident performing it (Song & Park, 2015). The ability to manage one's behaviour depends on one's level of confidence and the absence of barriers (Aras & Peker, 2024). Therefore, an individual with the capacity to share how they feel with others (DD) and those with substantial information about mental health (which provides a sense of control and boosts self-efficacy) may be inclined to seek psychological help.

In application, TPB is built on the notion that attitudes toward the behaviour (seeking psychological help), the subjective norm for the behaviour (e.g., religiosity) and perceived control over the behaviour (e.g., MHL and DD) are predictors of intentions to seek the help of a professional for mental health issues. The most direct indicator of actual behaviour is intention. TPB highlights the significance of using a multifaceted approach to describe what influences a person's intention to engage in a behaviour. For instance, if a person's attitude is primarily shaped by subjective norms that are contradictory to psychological help-seeking (e.g., religious labelling of mental health issues and strong negative perceived stigmatisation), changing the person's attitude alone through an intervention may not be the most effective strategy to seeking psychological treatment. Hence, the place of self-efficacy and behavioural control factors such as positive DD and high MHL are essential.

Literature Review and Hypotheses Development

Mental Health Literacy and Psychological Help-Seeking Attitudes

Research over the last decade has demonstrated that MHL is a significant factor influencing people's mental health as well as their dispositions and attitudes towards seeking help for mental health-related issues. According to Healthy People (2020), health literacy is "the degree to which individuals can obtain, process, and understand basic health information and services needed to make appropriate health decisions." According to Berkman et al. (as cited in Walker, 2021), there exists a correlation between low health literacy and low self-reported health status among young adults, even after controlling for education and other predictors of health. MHL was first introduced in the literature in 1997. It is defined as the knowledge and attitudes regarding mental health and mental illnesses that support the identification, treatment, and avoidance of mental health issues or disorders (Jorm et al., 1997; Muslic et al., 2021).

MHL encompasses basic knowledge and understanding of mental disorders and their treatments, techniques for lessening stigma and increasing the efficacy of help-seeking, and information and tactics for obtaining and sustaining mental health (Kutcher et al., 2015; Kutcher et al., 2016). The tripartite attitude model (also known as the ABC model of attitudes- where A stands for "Affective components," B for "Behavioural components," and C for "Cognitive components") is a useful model that highlights the role of MHL as captured by the cognitive component of attitude. MHL is a cognitive factor that can influence people's attitudes.

Several empirical studies have demonstrated a positive correlation between greater levels of MHL and PHSA. For example, Yang et al. (2023) examined the link between MHL and professional PHSA and found that the willingness to accept professional psychological assistance largely depends on the levels of MHL. Thus, the greater

the amount of MHL, the more open an individual is to seeking professional help for mental health problems. A comprehensive analysis of 53 studies revealed that 96% of them demonstrated a substantial positive association between young people's PHSA and MHL (Rafal et al., 2018). Studies using student samples have revealed that a major barrier to forming favourable PHSA was a lack of knowledge about mental health; many of these studies reveal a robust and positive correlation between young people's attitudes toward obtaining psychological help and their knowledge of mental health (Baklola et al., 2024; Duran & Ergun, 2023; Fazlifar et al., 2024; Kantaş Yilmaz & Ünkür, 2023; Zheng et al., 2023). Therefore, it is hypothesised that MHL positively predicts PHSA.

Mental Health Literacy and Distress Disclosure

Studies examining the link between MHL and DD are limited in the literature. DD refers to the willingness of an individual to confide in and express their negative emotions and sensations to others rather than keeping them to themselves (Coates & Winston, 1987; Yang et al., 2023). The tripartite model of attitude also highlights the importance of behavioural inclination. In particular, when individuals affirm a behavioural statement, it suggests a significant increase in the likelihood of engaging or taking action. In this context, seeking psychological help can lower the levels of psychological distress (Keum et al., 2023; Yang et al., 2023). Additionally, according to the TPB, DD represents a form of perceived behavioural control which enables the individual to avoid concealment and seek psychological help.

According to Aras and Peker (2024), the capacity to regulate one's behaviour is contingent upon the degree of self-confidence and the clear absence of obstacles. Information about mental health (MHL) can offer one a sense of control, increase efficacy, and promote DD (Yang et al., 2023). Those who can disclose their discomfort to others are more likely to seek psychological help (Yang et al., 2023). A few studies have demonstrated a positive association between sufficient knowledge of mental health and DD (Dopmeier et al., 2020; Schlechter et al., 2021; Traynor et al., 2024; Yang et al., 2023). Based on this review, it is hypothesised that MHL positively predicts DD.

Distress Disclosure and Psychological Help-Seeking Attitudes

Empirical studies have shown that DD can reduce negative emotions and feelings of discomfort among young people. For example, a study conducted by Keum et al. (2023) on DD and psychological distress among men indicated that DD can reduce psychological distress. In another study, Wagner and Reifegerte (2024) found that depressiveness is positively correlated with concealment or non-disclosure of mental distress. This suggests that men who disclose their distress may be using a socially acceptable tactic to feel understood and connected to others, thereby reducing

psychological distress. Recently, Ugwu et al. (2024) found that emotional intelligence and DD mitigate the effects of trauma among adolescents. Additionally, DD has been shown to increase quality of life (Bu et al., 2023; Tao et al., 2024) and enhance help-seeking attitudes (Schlecter et al., 2021; Yang et al., 2023). Consequently, it is hypothesised that DD positively predicts PHSA.

Mediating Role of Distress Disclosure on MHL-PHSA Linkage

According to the theoretical foundations and prior empirical studies on the nexus among MHL, DD, and PHSA, DD may act as a mediator in the link between MHL and PHSA (Keum et al., 2023; Ugwu et al., 2024; Yang et al., 2023). DD has been found to mediate the relationship between trait rumination and post-stress growth (Wang et al., 2023). Therefore, it is hypothesised that DD has an indirect effect on the MHL-PHSA relationship.

Religiosity as a Moderator

Religiosity refers to the formal, institutional, and outward expression of a person's relationship with the sacred or divine (Cotton et al., 2006). It is usually operationalised as the behaviours and beliefs connected to a certain religious group or community (Iannello et al., 2019). It describes people's levels of commitment and devotion to their religious affiliation or community. The relationship between religiosity and its mechanisms, such as religious coping, morality, and shared connectedness, on an individual's views and behaviours have long been established in the literature (e.g., Syafitri & Rahmah, 2021; Umair et al., 2023). It has been noted that religiosity enhances the predictive power of the theoretical model because it has been successfully employed in studies utilising the theory of planned behaviour (Aminnuddin, 2019; Mahmud & Yusof, 2018).

Religiosity impacts PHSA for at least three basic reasons. The first is the difference in religious views between mental health practitioners and their clients. Clients may feel that their beliefs differ from those of their therapist, which can make it difficult for them to ask for help. Clients high in religiosity may seek out professionals with a strong religious background (Gregory et al., 2008). Second, clients face a more significant conundrum: they are unsure about whether to reveal their religious beliefs throughout the therapeutic process because they think it may undermine their confidence in secular treatment (Syafitri & Rahmah, 2021). Third, religiosity is characterised by a unique coping mechanism (religious coping) that can sometimes lead individuals to believe that they do not need the help of a mental health professional. Studies have shown that young people who engage in this behaviour have positive attitudes to religious help-seeking and hold negative PHSA (Smolak et al., 2013; Wamser et al., 2011). According to previous research, only about 30% of individuals with mental

health illnesses seek out psychological assistance; the remaining turn to friends, family, or another informal form of support such as religious leaders (Brown et al., 2014; Syafitri & Rahmah, 2021).

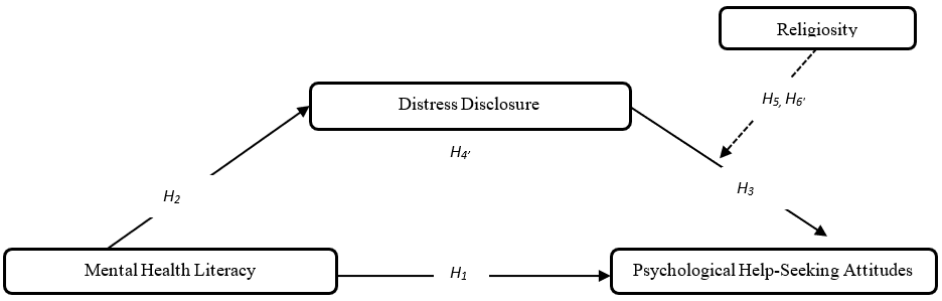
According to the findings of the African Polling Institute and EpiAFRIC (2019), there is a low level of awareness regarding mental health issues in Nigeria. Most respondents acknowledged having a mental health condition and believed it was usually caused by drug addiction, brain illness, or possession by evil spirits. For interventions, most patients are referred to prayer houses or prefer to use spiritual means. Earlier research has specifically shown that Nigerians are more likely to manage their pain or seek support from unofficial sources (friends, family, religious groups, and traditional healers) than from mental health professionals (Labinjo et al., 2021).

Because Nigerians are very spiritual and religious, they typically seek the advice of faith leaders first (e.g., pastors, imams, priests, etc.) when they have mental health problems. Studies have shown that individuals high in religiosity show greater reluctance to seek formal psychological assistance (Moreno & Cardemil, 2018; Moreno et al., 2017). It has also been reported that religiosity does not significantly affect help-seeking intention (Rogers-Sirin et al., 2017; Syafitri & Rahmah, 2020) while Fekih-Romdhane et al. (2023) reported a favourable association between religiosity and PHSA.

The inconsistencies in these studies justify examining the moderating and conditioning impact of religiosity on PHSA in the presence of MHL and DD. Thus, it is proposed that religiosity moderates the direct link between DD and PHSA such that higher levels of religiosity decrease the association and lower levels of religiosity increase it. Religiosity may also moderate the mediated path between MHL and PHSA

Figure 1.

Figure 1 shows the hypothesised model for the direct, indirect, conditional, and conditional indirect effects.



through DD. Empirical studies have shown that religiosity moderates the relationship between anxiety and quality of life (Al-Shaer et al., 2024), and the nexus between stigma for mental illness and PHSA (Fekih-Romdhane et al., 2023). Therefore, it is hypothesised that higher religiosity reduces the MHL-PHSA linkage through DD.

Based on the theoretical and empirical literature reviewed, and in line with the research objectives and hypothesised model, the following hypotheses have been formulated for this study.

H_1: Mental health literacy positively predicts PHSA.

H_2: Mental health literacy positively predicts distress disclosure.

H_3: Distress disclosure positively predicts PHSA

H_4: Distress disclosure mediates the relationship between MHL and PHSA.

H_5: Religiosity moderates the relationship between DD and PHSA such that the relationship would be stronger when religiosity is low than when it is high.

H_6: Religiosity moderates the indirect effect of DD on the relationship between MHL and PHSA such that the relationship would be stronger when religiosity is low than when it is high.

Method

Participants

The participants consisted of 320 undergraduate students sampled from the Abraka campus of Delta State University, Nigeria. The sample comprises 116(36.3%) males and 204(63.7%) females with an average age of 20.75 years (*SD*= ±2.51). The age distribution of the participants showed that their ages ranged from 16 – 30 years. A descriptive breakdown of the age ranges showed that 174(54.4%) of the participants were under 21 years old, 128(40.0%) were between 21-25 years old, and 18(5.6%) were between 26 -30 years old. The results also showed that 317 (99.1%) of the participants were single, while 3(0.9%) were married. Also, most of the participants were in their second year 117(36.6%) and first year 86(26.9%) respectively. Those in third, fourth and fifth year comprised 52(16.3%), 61(19.1%), and 4(1.3%) of the sample respectively. The participants were drawn from six faculties: Arts, Basic Medical Science, Management Sciences, Pharmacy, Sciences, and Social Sciences, with the faculty of management science having the highest number of participants (24.1%).

To ascertain the impact of exposure to mental health problems, information about both direct and indirect experiences was collected and coded using a yes/

no response format. Based on this, 278(86.9%) of the participants indicated that they had experienced mental health problems, while 42(13.1%) indicated that they had not. Secondly, 279(87.2%) indicated that they had cared for someone or were a relative of someone who had experienced a mental health problem. Thirdly, 200(62.5%) reported that they had faced mental health challenges at the university, while 120(37.5%) indicated they had not experienced mental health problems at the university. Furthermore, to assess the reported levels of religiosity a yes/no question was used to capture the number of participants who consider themselves religious. The analysis showed that 289(90.3%) agreed that they were religious, while 31(9.7%) indicated that they were not religious. This information is further reflected in their mean score for religiosity.

Inferential statistics requires adequate sample size and power analysis to determine significance. Consequently, these factors (power, effect size, significance level and analysis type) were put into consideration during the study's design. The estimated sample size was achieved using the G*power software (v3.1.9.7) with a linear multiple regression fixed model and an R^2 deviation of zero fixed at A-priori. A minimum sample of 119 participants for the model, based on a medium effect size of .15, a .05 alpha level, and power fixed at .95. The generated sample size was sufficient to determine statistical power. However, a larger sample size is often recommended to help reduce non-response bias.

Procedure

The research adhered to the most recent information in the Helsinki Declaration for studies involving human participants. The Psychology Department's Research Ethics Committee (Delta State University, Abraka) gave its approval for this study. The approval for the study was given on June 04, 2024, with reference number 0001833. A protocol was developed, incorporating questions about the sociodemographic characteristics of the participants, instruments, and informed consent. The informed consent contained a description of the theme and general purpose of the study, as well as the statement that participation was entirely voluntary. The participants were guaranteed the privacy and confidentiality of their data. A few inclusion criteria were established to guide the sampling process: participants must be enrolled in a full-time degree program, be in one of the recognized levels outlined by the Delta State University Council, be enrolled in one of the faculties situated in the Abraka campus, and have provided verbal consent indicating their willingness to participate in the study. Therefore, participation was limited to those who met these requirements.

Participants with a significant number of missing responses were excluded in the final analysis. The faculties in the Abraka campus were selected using a simple random sampling technique while convenience sampling was used to select students

who met the inclusion criteria. A few procedures were put in place to reduce the levels of method bias. These include making certain that the criterion variable was presented before the predictor variables, ensuring that participants know that their data are kept private and confidential, and making sure the questionnaire's items are easily understood and legible (Kaltsonoudi et al., 2022). A selected group of third-year psychology students were trained to serve as research assistants during the data collection process. These students, under supervision, were randomly assigned to distribute the questionnaires to the selected faculties. The questionnaire took approximately ten to twelve minutes to complete.

Measurement

The participants' socio-demographics such as gender, age, marital status, faculty, level of study, and exposure to mental health problems were collected in the first section of the questionnaire. The second section contains the instruments used for measuring the main variables being examined.

Psychological Help-Seeking Attitudes: This scale was developed by Fischer and Turner (1995) and is theoretically predicated on the concept of PHSA. It is a 10-item scale used to assess people's attitudes toward getting psychological assistance. The scale describes the significant aspect of PHSA which includes openness to seeking treatment (measured with five items, e.g., If I believe I was having a mental breakdown, my first inclination would be to get professional attention) and value and need to seek treatment (measured with five items, e.g., The idea of talking about problems with a psychologist strikes me as a poor way to get rid of emotional conflict). The 10-item scale with relatively two independent factors was developed from the original 29-item multidimensional measure developed by Fischer and Turner (1970). To develop the 10-item version of the scale, the highest item-total score correlations from 14 of the original 29 items were used. A 5-point Likert scale ranging from strongly agree to strongly disagree was used in this study. The scale was used in its original form and was only adapted where necessary to suit the research context. The total score that is achieved varies from 1 to 50, where higher values correspond to more optimistic views toward seeking psychological assistance. Torres et al. (2021) reported an internal consistency of .70 for the scale across English and Spanish samples.

Mental Health Literacy: This was measured using the knowledge of mental health problems subscale of the MHL scale developed by Dias et al. (2018) and further validated by Campos et al. (2022). It is a six-item scale that assesses an individual's knowledge about mental health problems. The other dimensions were not considered, as some of the items overlap with the variables included in the current study. Therefore, the researcher was only interested in participants' knowledge of mental health problems and how this knowledge affects their willingness to seek professional

psychological assistance. Sample items on the scale include "mental disorders affect people's thoughts" and "highly stressful situations may cause mental disorders". The scale was anchored on a 5-point response format with 1 being "strongly disagree" to 5 being "strongly agree". The overall score for each participant represents their level of MHL. The scores for the 6-item scale ranged from 1-30, where higher values are associated with higher MHL. The scale produced satisfactory internal consistency values from .66 to .83 (Campos et al., 2022; Dias et al., 2018).

Distress Disclosure: This was measured with the disclosure of distress index developed by Kahn and Hessling (2001). The developers proposed that individual variances in the propensity to hide or reveal psychological distress were indicative of a unidimensional construct linked to modifications in psychological adjustment. The DD scale is a 12-item scale developed using content domains such as type of distress, audience, proactive, and reactive disclosure. Sample items on the scale include "when I feel upset, I usually confide in my friends" and "I prefer not to talk about my problem". All negative worded items were reverse-coded as instructed in the original development. The Scale was based on a response structure with five points (1 = strongly disagree to 5 = strongly agree). The scores ranged from 1 to 60. The total score for each participant reflects their degree of DD, with higher values indicating higher levels of DD. The scale demonstrated an excellent internal consistency of .94, indicating it is a reliable tool for assessing DD among undergraduate students.

Religiosity: This was measured with the religious commitment inventory developed by Worthington et al. (2003). It is a 10-item scale that measures people's levels of commitment and devotion to their chosen religious affiliation. The scale comprises two dimensions: intrapersonal religious commitment (measured with six items, e.g., I spend time trying to grow in understanding of my faith) and interpersonal religious commitment (measured with four items, e.g., I make financial contributions to my religious organisation). The scale uses a five-point Likert rating style ranging from 1 being "not at all true of me" to 5 being "totally true of me". The scores ranged from 1 to 50, where higher scores indicate higher levels of religiosity. The scale demonstrated a good internal consistency estimate of .88 in a sample of college students.

Design and Statistics

A cross-sectional research design was used in this study. The zero-order correlation of the study's focal construct, internal consistency estimates (Cronbach's alphas and McDonald's omega), and normality test (via skewness and kurtosis) were examined. Simple regression analysis was used to explore the direct relationships, while multiple regression was carried out to check the contributions of each predictor to PHSA. Model 4 of the PROCESS plug-in tool was used for testing the mediation, while Model 14 was used for testing the moderation and moderated mediation. To determine 95% confidence

intervals (CIs), bootstrapping was used to evaluate the mediation, moderation, and moderated mediation hypotheses by a resampling of 5000 samples. Results were considered statistically significant if the 95% CI did not contain zero and the p-value was less than 0.05. Data analysis was carried out with the IBM-SPSS Statistics v25 and further complemented with Hayes' PROCESS Macro v4.2.

Control Variables

Research has shown that factors such as gender, age, marital status, educational level, and exposure to mental health problems are associated with PHSA (Baklola et al., 2023; Çakar, 2015; Güney et al., 2024; King et al., 2023), MHL (Dopmeier et al., 2020), DD (Dopmeier et al., 2020; Rafal et al., 2018), and religiosity (O'Brien et al., 2019). To address potential bias of these factors in the model, the socio-demographics of the participants (gender, age, marital status, faculty, level of study, and exposure to mental health problems) were included as control variables. Similar studies in the literature have also adopted gender and age as covariates (O'Brien et al., 2019; Yang et al., 2023).

Results

Assessment of the Measurement Model

Common method variance (CMV) was evaluated using the correlation matrix technique and Herman's single-factor test. The analysis' findings fell within reasonable limits. The test findings showed that the first component explained 18.323% of the variation. The results show that up to 50% of the overall variation cannot be explained by the first element, indicating that CMV is not an issue in the dataset. The instruments used for data collection were evaluated for reliability and validity. Internal consistency measures for reliability, such as Cronbach's α and composite reliability (CR) were used. The values were within the acceptable range, > .70, indicating that the scales are reliable (Hair et al., 2020; Karimi et al., 2020). The satisfactory Cronbach's α supported convergent validity (Zaman et al., 2021). The average variance extracted (AVE) and the convergent validity coefficient (i.e., CR) were used to examine statistical evidence of convergent validity.

Discriminant validity was evaluated through the square root of average variance extracted, as seen in Table 2. Acceptable convergent validity requires the CR values to be ≥ .70 (Yu et al., 2024; Wu et al., 2022). The square roots of AVE were above the correlation values, indicating the presence of discriminant validity (Fronell & Larcker, 1981). AVE should be > .5 for every construct. However, the values below this threshold are acceptable if the composite reliability is > .6, which is the case for all the constructs (Fronell & Larcker, 1981). The values for skewness and kurtosis were between -1.06 and +1.24, indicating that the data is normally distributed. This

is sufficient for a sample size of 200 and above (Demir, 2022; Hair et al., 2020). The tolerance (>.40), VIF (<10), and Durbin-Watson (1.97) were all within the acceptable range, suggesting the absence of multicollinearity (Field, 2018).

Table 1.
Reliability, Average Variance Extracted (AVE), Normality, Variance Inflation Factor (VIF), and Tolerance level

	Items	*Cronbach's α*	*McDonald's ω*	*CR*	*AVE*	*Skewness*	*Kurtosis*	*VIF*	*Tolerance*
MHL	6	.808	.811	.863	.515	-1.06	1.24	1.074	.931
DD	12	.901	.902	.917	.481	-.129	-.553	1.064	.940
Religiosity	10	.881	.882	.904	.486	-.165	-.552	1.011	.990
PHSA	10	.755	.769	.821	.344	-.370	.056	--	--

Note: MHL = mental health literacy; DD = distress disclosure; PHSA = psychological help-seeking attitudes; CR = composite reliability; AVE = average variance extracted; Durbin-watson (DW) = 1.97

Descriptive Statistics

The mean and standard deviation were at moderate levels. Consistent with the proposed relationship, the correlational analysis showed that MHL is positively correlated with PHSA (r = .403, p < .01), thus indicating that an increase in MHL scores is associated with an increase in the scores for PHSA. From the values in Table 2, MHL positively correlates with DD (r = .245, p < .01), with the statistics showing that an increase in the scores for MHL necessitates an increase in the scores for PHSA. Also, DD was positively associated with PHSA (r = .460, p < .01), indicating that an increase in the scores for DD leads to an increase in scores for PHSA. Religiosity showed a positive attribute but was not significantly related to the other construct. Since all of the variables had moderate correlation values < .80 and were positively and strongly intercorrelated, there were no multicollinearity issues in the data. This benchmark also supports the correlation matrix technique employed to assess method variance (Tehseen et al., 2017). Evidence of the discriminant validity of the constructs was provided through the square root of the average variance extracted (AVE). These values, bolded along the diagonal in Table 2, were greater than all the correlation matrix values, establishing the presence of discriminant validity in the measurement model (Fronell & Larcker, 1981; Hair et al., 2020).

Table 2.
Mean, Standard Deviation, Correlational Coefficients and Squared Root of AVE of the Constructs

		M	*SD*	*1*	*2*	*3*	*4*
1	Mental Health Literacy	3.821	.773	**.717**			
2	Distress Disclosure	2.855	.889	.245**	**.693**		
3	Religiosity	3.110	.913	.102	.026	**.697**	
4	Psychological Help-Seeking Attitudes	3.251	.678	.403**	.460**	.084	**.586**

Note: ** < .01. The bolded diagonal values indicate the square root of AVE.

Testing the Direct, Indirect, Moderation, and Moderated Mediation Effects

The predictive relationships among MHL, DD, and PHSA are shown in Table 3. The statistics supported hypotheses 1, 2, and 3. For hypothesis 1, MHL strongly predicted PHSA (β = .403, 95% CI [.264, .442], t = 7.842, p < .01). According to the statistical indices, there is a .403 rise in PHSA for every unit increase in MHL. The R^2 statistics indicate that MHL accounts for a 16.2% variance in PHSA. The analysis of variance (ANOVA) statistics, $F(1,318) = 61.501$, $p < .01$, was statistically significant, hence indicating that PHSA can be predicted from MHL. The robust cross-validation resulted from the marginal difference between R^2 and *adjusted* R^2, which indicates that the sample may apply to comparable population samples. Hypothesis 1 (H_1) was accepted.

Results indicate that MHL positively and significantly predicts DD (β = .245, 95% CI [.158, .405], t = 4,497, p < .01). The statistical indices reveal that a one-unit increase in MHL leads to a .245 increase in DD. The R^2 statistics indicate that MHL accounts for a 6% variance in DD. The values for ANOVA statistics, $F(1,318) = 20.223$, $p < .01$, showed a significant regression, indicating that DD can be predicted from MHL. The model may be applied to comparable population samples, as evidenced by the tiny difference between R^2 and *adjusted* R^2, which points to a robust cross-validation. Hypothesis 2 (H_2) was accepted.

The results further indicate that DD positively and significantly predicts PHSA (β = .460, 95% CI [.247, .425], t = 9.247, p < .01). The statistical indices indicate that a one-unit increase in DD leads to a .460 increase in PHSA. The R^2 statistics indicate that DD accounts for a 21.2% variance in PHSA. The ANOVA statistics, $F(1,318) = 85.499$, $p < .01$, was statistically significant, indicating that DD can be predicted from MHL. Hypothesis 3 (H_3) was accepted. The small difference between R^2 and *adjusted* R^2 suggests a strong cross-validation, showing that the model can be applied to similar population samples.

Table 3.
Simple regression analysis on the predictive relationship among MHL, DD and PHSA

	B	*SE*	β	*t*	*P*	*95% Confidence Interval*		R^2	*F*
						Lower Limit	*Upper Limit*		
Constant	1.902	.176		10.838	.001	1.557	2.247		
MHL → PHSA	.353	.045	.403	7.842	.001	.264	.442	.162	61.501
Constant	1.780	.244		7.297	.001	1.300	2.260		
MHL → DD	.281	.063	.245	4.497	.001	.158	.405	.060	20.223
Constant	2.250	.113		19.839	.001	2.026	2.473		
DD → PHSA	.351	.038	.460	9.247	.001	.247	.425	.212	85.499

Note: MHL = mental health literacy; DD = distress disclosure; PHSA = psychological help-seeking attitudes

The multiple regression analysis model was significant and indicated that MHL, DD, and Religiosity have a combined R^2 of .297 and R of 0.303. The later data show that the three variables, MHL, DD, and Religiosity, account for more than a quarter

of the variance in PHSA (explaining 29.7% of the variance), with semi-partial correlation indices of .293, .373, and .043, respectively. Thus, DD explained more variance in PHSA than MHL and Religiosity.

Table 4.
Statistical output for the indirect effect of MHL on PHSA through DD

Mediational paths	a	b	c '	a*b	95% CI of a*b	c	se
MHL → DD → PHSA	.229	.394	.309	.090	[.044, .137]**	.350	.046

Note. ** < .01; c ' = direct effect; a*b = indirect effect; c = total effect

The result of the indirect effect of DD is shown in Table 4. After controlling for gender, age, marital status, educational level, and exposure to mental health problems in the mediation model, an indirect effect of DD on the relationship between MHL and PHSA was found. The results indicate that MHL has a significant indirect effect on PHSA through DD, β = 0.090, 95% CI [.044, .137]. The absence of zero value in the confidence interval statistics indicates a significant indirect effect. The result was consistent with a partial mediation; the 5000 bootstrap estimated samples revealed that both the total effect (β = .350, 95% CI [.258, .442], $p < .01$) and direct effect (β = .309, 95% CI [.185, .356], $p < .01$) were statistically significant. Hypothesis 4 (H_4) was supported.

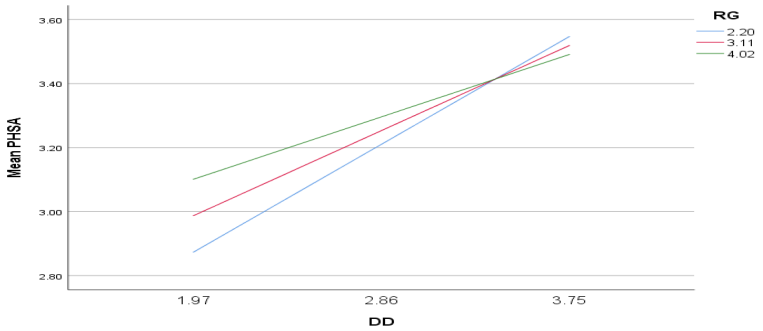
Table 5.
Summary of results for the moderated mediation model

	Psychological Help-Seeking Attitudes				
Predictors	B	*SE*	*LLCI*	*ULCI*	*P*
Religiosity	.296	.112	.074	.517	.009
Distress Disclosure x Religiosity	-.087	.037	-.160	-.014	.019
	Conditional Indirect Effect(s) of MHL on PHSA at values of the moderator(s)				
Religiosity	Effect	SE	LLCI	ULCI	
-1 Standard Deviation – Low	.099	.027	.048	.155	
Mean – Moderate	.078	.022	.035	.124	
+1 Standard Deviation – High	.057	.021	.021	.102	
	Index of Moderated Mediation				
	Effect	*SE*	*LLCI*	*ULCI*	
Religiosity	-.023	.012	-.048	-.001	

Note: SE = standard error of bootstrap samples (5000); CI = confidence interval; LL = lower limit; UL = upper limit

The results in Table 5 showed that after controlling for gender, age, marital status, educational level, and exposure to mental health problems in the moderated mediation model, religiosity negatively moderates the DD-PHSA relationship value (β = -.087, 95% CI [-.160, -.019]). The interaction effect was significantly different from zero at -1 *SD* (β = .378, 95% CI [.281, .475]), at the mean value (β = .298, 95% CI [.226, .370]), and +1 *SD* (β = .219, 95% CI [.119, .318]). The different levels indicate that as religiosity decreases so does the strength of the positive relationship between DD and PHSA, leading to the acceptance of hypothesis 5 (H_5).

Figure 2.
Interaction graph of DD and religiosity (RG) on PHSA



The moderated mediation model was supported; religiosity negatively moderated the indirect effect of MHL on PHSA by moderating the impact of DD on PHSA (β = -.023, *SE* = .012, 95% CI [-.048, -.001]). Three specific values of religiosity showed the conditional indirect effect of MHL on PHSA through DD: -1 *SD* (2.196 = low mean value), the mean (3.110 = mean value), and +1 *SD* (4.024 = high mean value). The indirect effect was significantly different from zero at -1 *SD* (β = .099, 95% CI [.048, .155]), at the mean value (β = .078, 95% CI [.035, .124]), and +1 *SD* (β = .057, 95% CI [.021, .102]). Moreover, the results demonstrate that the positive impact of MHL on PHSA through DD decreases when religiosity increases and increases when religiosity decreases. Hypothesis 6 (H_6) was accepted.

Discussion

In this study, the researcher investigated the effect of MHL and DD on PHSA. The study also explored a complex moderated mediation model of DD and religiosity on the relationship between MHL and PHSA. The socio-demographic characteristics reveal that a significant number of the students sampled for the study said that they have been exposed to mental health problems either through taking care of a relative with mental health challenges or through facing personal mental health challenges. This led to controlling for these factors to partial out their effect on the final hypothesised results. The regression model (moderated mediation) allowed for the testing of six hypotheses. The first hypothesis (H_1), which stated that MHL will positively and significantly predict PHSA, was supported. This indicates that an increase in MHL necessitates an increase in PHSA. According to the theory of planned behaviour, MHL may provide some form of control over seeking psychological assistance, this control can improve the intention to seek professional psychological help (Song & Park, 2015).

This result is consistent with the extant literature demonstrating that MHL impacts mental health dispositions (Rafal et al., 2018; Yang et al., 2023). Lack of knowledge

about mental health was found to be a major barrier to developing positive views about seeking professional psychological help. The result of the first hypothesis is supported by many other studies that have found a strong and positive correlation between young people's attitudes toward seeking professional psychological help and their knowledge of mental health (Baklola et al., 2024; Fazlifar et al., 2024; Kantaş Yilmaz & Ünkür, 2023; Zheng et al., 2023).

The second hypothesis (H_2) was also supported, as the results indicated that MHL is a significant predictor of DD. Therefore, an increase in MHL will lead to an increase in DD. This result supports the notion that individuals with knowledge of mental health issues are more inclined to disclose their distress or mental health problems to others. Students can feel more in control, be more effective, and disclose their discomfort when they are knowledgeable about mental health (Yang et al., 2023). This result is supported by previous empirical studies showing a significant correlation between having an adequate understanding of mental health and DD (e.g., Schlechter et al., 2021; Traynor et al., 2024; Yang et al., 2023).

Accordingly, the third hypothesis (H_3) was also supported, showing that DD positively predict PHSA. This outcome supports the idea that students who are comfortable confiding in others are more inclined to seek out professional psychological services (Schlecter et al., 2021; Yang et al., 2023). The results of the first three hypotheses supported the mediational paths. The mediational analysis showed that DD mediates the relationship between MHL and PHSA. Hence, hypothesis four (H_4) was supported. DD mediates the MHL and PHSA relationship by creating a connection between the two. This shows that students' knowledge and understanding of mental health issues make it possible for them to disclose their feelings, which in turn promotes favourable PHSA. Wang et al. (2023) found that DD mediates the link between trait rumination (negative experiences) and post-stress growth thus empirically supporting hypothesis four.

The results of hypothesis five (H_5) showed that religiosity acts as a negative moderator in the paths between DD and PHSA, such that higher religiosity decreases the possibility of favourable PHSA, while lower religiosity increases favourable PHSA. High religiosity may lead to a sense of dependence on the supernatural and the use of religious coping (through beliefs and strategies), where all that occurs in a person's life is perceived as divine. While religious coping can have a positive impact on mental health (O'Brien et al., 2019), it can negatively impact PHSA (Moreno & Cardemil, 2018; Moreno et al., 2017). Young people who are highly religious may turn to spiritual leaders, the majority of whom are not trained in mental health-related matters. Lastly, hypothesis six (H_6), which stated that religiosity moderates the indirect effect of MHL on PHSA via the incorporation of DD as mediator, was supported as a negative index of moderated mediation was found. In essence, religiosity negatively moderates the indirect effect of MHL on PHSA through DD.

Implications for Mental Health Professionals

This research was carried out to examine the relationship between MHL and PHSA in a moderated mediation model involving DD and religiosity in a sample of university undergraduates. The study highlights the roles of MHL, DD, and religiosity in university students' attitudes toward seeking professional psychological help. Mental health professionals who interact with college students can benefit greatly from a greater understanding of the variables linked to PHSA. Based on the findings presented (outlined in the study's objectives and supported by the theoretical framework), the following recommendations were drawn up to shed more light on implementing policies that will improve mental health awareness and positive attitudes towards help-seeking among young people.

Undergraduates' favourable views toward obtaining professional psychological assistance and their ability to recognise the signs of mental health problems may be significantly impacted by MHL. Psychologists and counsellors on college campuses might enhance MHL by conducting outreach programs that educate people about the signs of mental health conditions, the value of early identification, how to disclose concerns, and how to get psychological assistance (Boville et al., 2022). Therefore, university campaigns can normalise the practice of obtaining professional psychological assistance by inviting speakers who can talk about the elements that either encourage or discourage help-seeking behaviours. These outreach programs can help shift young people's reliance on religion as the sole solution for mental health conditions, encouraging them to engage more with trained mental health experts. Psychologists and counsellors need to demystify the therapeutic and counselling process and frame seeking psychological help as a strength. Additionally, implementing mental health education in the university curricula may contribute to a rise in mental health literacy and a reduction in the stigma associated with asking for professional psychological assistance (Sokolova, 2024).

Limitations and Future Research Directions

The study has certain limitations. First, a notable constraint concerns the method of data collection, which was solely based on self-reporting of behaviours. Self-report measures can sometimes introduce recall bias in response to items measuring MHL, DD, religiosity, and PHSA. Social desirability might have led to respondent bias. Even though the study's design incorporated procedural control and statistical checks for CMV, controlling for socially desirable responses in a survey-based study is always difficult. Second, the research sample came from the Delta State University campus in Abraka, Nigeria. Therefore, the data has certain geographic constraints. The results might not have been as broadly applicable, given that the students were chosen from a specific area.

Third, the participants utilised for the study were all young people and Christians, making it difficult to use these findings to make inferences about the professional PHSA of young and older people from other religious backgrounds. Future studies may contribute to the generalisation of the findings by adopting both young and older individuals from diverse cultural and religious backgrounds. Therefore, exploring whether similar results persist or whether differences emerge across other groups (based on culture and religion) might provide vital information for research in the future.

Additionally, the nexus between MHL and PHSA in a moderated mediation model of DD and religiosity was examined using a cross-sectional design and a quantitative approach (questionnaires) for data collection. Cross-sectional data cannot validate important temporal linkages in the help-seeking process or establish the causality of relationships between variables. The results should be repeated and expanded upon in subsequent research using mixed-methods or qualitative approaches. The use of a mixed method is becoming increasingly popular in the literature. This study suggests that future researchers investigate the mediating pathways and interactions among the variables analysed in this study using qualitative methods.

Future studies can adopt recent qualitative methods such as Online Photovoice (OPV; Tanhan & Stract, 2020), Online Interpretative Phenomenological Analysis (OIPA; O'Malley et al., 2024), and Community-Based Participatory Research (CBPR; Dari et al., 2023). Hence, data on similar studies can be collected through interviews with participants using the OPV method to evaluate direct and indirect relationships among the variables related to attitudes toward seeking psychological help. OPV gives opportunities to the participants to express their own experiences with as little manipulation as possible, if at all, compared to traditional quantitative methods (Ünsal Seydooğulları, 2023; Waalkes et al., 2024). Future research can use OPV, OIPA, and CBPR to explore the diverse mechanisms underlying the relationship between MHL and PHSA and their impact on young people.

Conclusion

The outcome of the present study bears significant importance to the literature as a valuable addition to understanding the connection between MHL and PHSA through the complex moderated mediation model involving DD and religiosity. The implications of these findings for mental health interventions in higher education settings are significant, and they bring to light potential obstacles to professional psychological assistance, such as young people's religious convictions, which can sometimes impede the need for psychological care. Hence, professionals have to make highly religious individuals see the need for professional psychological help. To support meaningful participation, policymakers, educational administrators, and associations of professional psychologists and counsellors must ensure that young

people have access to training on mental health and are offered opportunities to raise awareness in schools and communities. This training will improve MHL, which will in turn promote DD and PHSA.

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