Prevalence of Depression and Anxiety Symptoms in A Sample of Christian Denominations: A Study From South Africa

Prevalensi Gejala Depresi dan Kecemasan pada Sampel Denominasi Kristen: Studi dari Afrika Selatan

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Abstract
The rising global prevalence of mental disorders, particularly depression and anxiety, underscores the urgent need to assess their burden within communities. Faith-based groups represent a unique population for such assessments as they include diverse segments of society while also functioning as significant social and spiritual support systems. This study aimed to determine the prevalence of depressive and anxiety symptoms among members of Christian denominations in South Africa. A quantitative cross-sectional survey was conducted across various provinces, and data were collected using the Patient Health Questionnaire (PHQ-9) and the Generalized Anxiety Disorder Scale (GAD-7). A total of 508 participants constituted the final sample. The findings revealed a prevalence of 40.94% for depression and 38.98% for anxiety symptoms. Inferential analysis indicated significant associations between gender, number of dependents, and frequency of church attendance with both depression and anxiety symptoms (p≤0.05). These results highlight the elevated burden of mental health symptoms within faith-based populations, exceeding previously reported rates in the general population. The findings emphasize the importance of integrating mental health awareness and support into church settings to reduce stigma, provide targeted interventions, and promote family and community well-being within South Africa.

Abstrak
Peningkatan global gangguan mental, khususnya depresi dan kecemasan, menegaskan perlunya upaya untuk menilai beban kondisi ini di dalam masyarakat. Komunitas berbasis agama merupakan kelompok yang ideal untuk penilaian tersebut karena mencakup beragam segmen masyarakat serta berfungsi sebagai sistem dukungan sosial dan spiritual yang penting. Penelitian ini bertujuan untuk menentukan prevalensi gejala depresi dan kecemasan di antara anggota denominasi Kristen di Afrika Selatan. Survei potong lintang kuantitatif dilakukan di berbagai provinsi, dengan menggunakan Patient Health Questionnaire (PHQ-9) dan Generalized Anxiety Disorder Scale (GAD-7) sebagai alat ukur. Sebanyak 508 partisipan membentuk sampel akhir penelitian. Hasil penelitian menunjukkan prevalensi depresi sebesar 40,94% dan gejala kecemasan sebesar 38,98%. Analisis inferensial menunjukkan adanya hubungan yang signifikan antara jenis kelamin, jumlah tanggungan, serta frekuensi kehadiran di gereja dengan gejala depresi dan kecemasan (p≤0,05). Temuan ini mengungkapkan tingginya beban kesehatan mental pada populasi berbasis agama, yang melebihi angka yang sebelumnya dilaporkan pada populasi umum. Oleh karena itu, penting untuk mengintegrasikan kesadaran dan dukungan kesehatan mental ke dalam lingkungan gereja guna mengurangi stigma, menyediakan intervensi yang tepat sasaran, serta meningkatkan kesejahteraan keluarga dan komunitas di Afrika Selatan.

Graphical Abstract
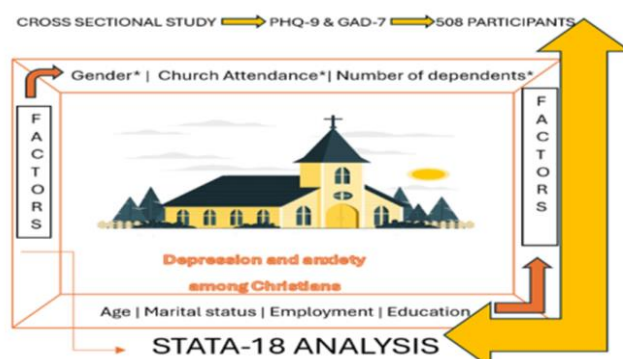
INTRODUCTION

Mental health disorders represent one of the leading global health challenges, with depression and anxiety accounting for a substantial burden of disease worldwide. The World Health Organization (WHO) has highlighted that mental health is critical to achieving the Sustainable Development Goals (SDGs), particularly Goal 3, which emphasizes ensuring healthy lives and promoting well-being for all at all ages (World Health Organization, 2021). Despite significant advances in treatment modalities, the global prevalence of depression and anxiety continues to rise, revealing persistent gaps in prevention and treatment strategies (GBD 2019 Mental Health Collaborators, 2022). This underscores the importance of exploring protective and risk factors that influence not only the onset but also the course of mental illness.

Religion, as a powerful social and cultural system, is increasingly recognized as one of these critical factors. Religious beliefs and practices have been shown to shape health behaviors, resilience in the face of adversity, and attitudes toward illness and healing (Du et al., 2024; Walters & Benjamins, 2022). Christianity, one of the major world religions, remains highly influential in Sub-Saharan Africa, including South Africa, where it is practiced by the majority of the population (Naicker, 2025). Understanding the role of religious affiliation in mental health is therefore of both scientific and public health relevance.

Although religion has been documented as a protective factor against depression and anxiety, its influence is not uniform across populations, as negative religious coping may exacerbate psychological distress (Park et al., 2018). South Africa presents a unique context, with a high prevalence of depressive and anxiety symptoms (Craig et al., 2022) and strong cultural reliance on religion, particularly Christianity (Naicker, 2025). However, limited empirical evidence exists on how depressive and anxiety symptoms are distributed among Christian denominations in South Africa. Addressing this gap requires systematic investigation into the intersection of religiosity and mental health, which may inform tailored strategies to strengthen protective factors while mitigating potential risks.

The literature demonstrates that religious commitment and spiritual practices, such as prayer, scripture reading, and fasting, are associated with lower risks of depression and greater resilience in times of adversity (Upenieks & Thomas, 2021; Musyoki, 2023). Positive religious coping, characterized by reliance on a secure relationship with God, has been linked to improved mental health outcomes, including reduced anxiety and greater psychological adjustment (Mijatović, 2021; Park et al., 2018). Conversely, negative religious coping—manifested as feelings of abandonment or punishment by God—has been associated with heightened distress, poorer treatment outcomes, and greater vulnerability to depression (Park et al., 2018). These findings suggest that the quality of religious coping, rather than religiosity per se, may play a decisive role in determining its impact on mental health.

Furthermore, religiosity has been consistently identified as a protective factor against suicidal ideation and behaviors. Studies have shown that highly religious individuals are less likely to develop major depression (Fernández-Niño et al., 2019), and participation in communal religious practices, such as church attendance, correlates with lower suicide rates (VanderWeerd, 2024). Religion thus provides both individual coping mechanisms and social support structures, which are vital for fostering resilience and reducing mental health risks (Ahmad et al., 2025). These insights underscore the importance of evaluating not only the presence of religiosity but also the denominational and contextual nuances that shape its influence on mental health outcomes.

Despite a growing body of evidence linking religiosity and mental health, most studies have focused on populations in North America and Europe, with relatively limited research in African contexts where religion remains a central part of daily life (Lucchetti et al., 2021; Mushonga & Henneberger, 2020). South Africa, while being a secular state, exhibits a high prevalence of Christianity, practiced by 86% of the population (Naicker, 2025). At the same time, the country reports disproportionately high rates of depression and anxiety compared to other African nations (Craig et al., 2022). This paradox highlights a critical gap in understanding how religious affiliation and coping mechanisms influence mental health outcomes within the South African Christian population.

The novelty of this study lies in its focus on examining the prevalence of depressive and anxiety symptoms among members of different Christian denominations in South Africa. By investigating denominational differences, this research aims to uncover whether certain religious practices and coping strategies confer stronger protective effects than others. The study also seeks to address whether religion functions as a buffer against psychological distress in a context of widespread mental health challenges. Therefore, the objective of this study is to determine the prevalence of depressive and anxiety symptoms across Christian denominations in South Africa and to assess the role of religiosity in shaping these mental health outcomes.

METHODS

This study employed a quantitative cross-sectional survey design using self-administered questionnaires to investigate the prevalence of depressive and anxiety symptoms among Christian churchgoers in South Africa. The study population consisted of the general church-going population across the nine provinces of South Africa. Eligible participants were male and female individuals above the age of 18 years, currently attending a Christian-affiliated church, willing to participate, and not previously diagnosed or undergoing treatment for depression or anxiety.

Table 1
Characteristics of Respondents

Variable	Frequency	Percentage
Church group (n=508)		
Charismatic/Pentecostal	254	50
Mainline Christian	254	50
Membership size (n=503)		
<100	139	27.63
≥100	364	72.37
Province (n=508)		
Eastern Cape	35	6.89
Gauteng	341	67.13
KwaZulu Natal	26	5.12
Limpopo	76	14.76
Mpumalanga	15	2.95
Other	15	2.95
Age (n=508)		
≤20	27	5.31
20-34	208	40.94
35-49	188	37.01
≥50	85	16.73
Age (Mean 36.96; SD 12.75; Min 18; Max 84)		
Gender (n=507)		
Female	301	59.37
Male	206	40.63
Marital Status (n=508)		
Married	151	29.72
Single	316	62.2
Divorced	23	4.53
Widowed	18	3.54
Race (n=508)		
Black	496	97.64
White	9	1.77
Colored	3	0.59
Home Language (n=508)		
Afrikaans	15	2.95
English	5	0.98
Sepedi	95	18.7
Sesotho	21	4.13
Setswana	81	15.94
IsiXhosa	74	14.57
IsiSwati	7	1.38
IsiNdebele	20	3.94
TshiVenda	26	5.12
XiTsonga	78	15.35
Other	36	7.09
Highest level of education (n=506)		
No formal education	14	2.77
Primary	9	1.78
High school	226	44.66
Tertiary	257	50.79
Employment status (n=508)		
Employed	201	39.57
Student	88	17.32
Unemployed	198	38.98
Retired	21	4.13
Number of dependents (n=493)		
None	205	41.58
1-3	202	40.97
>3	86	17.44
Church attendance (n=507)		
More than once a week	6	1.18
Weekly	316	62.33
Monthly	45	8.88
Twice a month	54	10.65
Three times a month	54	10.65
On special days	31	6.11

Note: Pearson chi-square test of association; $p < 0.05$ *.

Recruitment of participants was initially carried out through churches that granted permission to participate in the study. Field workers introduced the study and its objectives during church announcements and invited eligible and interested members to participate after the service. However, due to restrictions related to the COVID-19 pandemic, recruitment was later expanded through a snowball sampling method, where specific contacts within

various denominations facilitated outreach to potential participants. Ultimately, a sample of convenience was used, consisting of respondents who met the inclusion criteria and expressed willingness to take part.

The minimum sample size was determined using the Raosoft sample size calculator, assuming a 5% margin of error, a 95% confidence interval, and a 50% response rate for an unknown population of national Christian churchgoers. This calculation yielded a minimum of 377 participants. The final sample comprised 508 participants, thereby surpassing the required sample size. Data were collected using a socio-demographic questionnaire developed by the researcher, together with two standardized instruments: the Patient Health Questionnaire (PHQ-9) and the Generalized Anxiety Disorder (GAD-7) scale. Both instruments have been widely used

Table 2
Factors Associated with Depression Symptoms

Factors	Frequency (%)	Depression symptoms		Chi²	p-value
		Yes (%)	No (%)		
Age (n=508)					
≤20	27 (5.31)	18 (8.65)	9 (3.00)		
21-34	208 (40.94)	80 (38.46)	128 (42.67)	17.7222	0.001*
35-49	188 (37.01)	64 (30.77)	124 (41.33)		
≥50	85 (16.73)	46 (22.12)	39 (13.00)		
Gender (n=507)					
Female	301 (59.37)	151 (72.60)	150 (50.17)	25.5815	0.000*
Male	206 (40.63)	57 (27.40)	149 (49.83)		
Marital Status (n=508)					
Married	151 (29.72)	79 (37.98)	72 (24.00)		
Single	316 (62.20)	113 (54.33)	203 (67.67)	13.2524	0.004*
Divorced	23 (4.53)	7 (3.37)	16 (5.33)		
Widowed	18 (3.54)	9 (4.33)	9 (3.00)		
Race (n=508)					
Black	496 (97.64)	205 (98.56)	291 (97.00)		
White	9 (1.77)	0 (0.00)	9 (3.00)	10.5974	0.005*
Colored	3 (0.59)	3 (1.44)	0 (0.00)		
Home Language (n=508)					
Afrikaans	15 (2.95)	1 (0.48)	14 (4.67)		
English	5 (0.98)	2 (0.96)	3 (1.00)		
Sepedi	95 (18.70)	36 (17.31)	59 (19.67)		
Sesotho	21 (4.13)	14 (6.73)	7 (2.33)		
Setswana	81 (15.94)	19 (9.13)	62 (20.67)		
IsiXhosa	74 (14.57)	48 (23.08)	26 (8.67)	59.9956	0.000*
IsiSwati	7 (1.38)	3 (1.44)	4 (1.33)		
IsiNdebele	20 (3.94)	1 (0.48)	19 (6.33)		
TshiVenda	26 (5.12)	9 (4.33)	17 (5.67)		
XiTsonga	78 (15.35)	31 (14.90)	47 (15.67)		
Other	36 (7.09)	19 (9.13)	17 (5.67)		
Highest level of education (n=506)					
No formal education	14 (2.77)	12 (5.77)	2 (0.67)		
Primary	9 (1.78)	2 (0.96)	7 (2.35)	37.6339	0.000*
High school	226 (44.66)	64 (30.77)	162 (54.36)		
Tertiary	257 (50.79)	130 (62.50)	127 (42.62)		
Employment status (n=508)					
Employed	201 (39.57)	98 (47.12)	103 (34.33)		
Student	88 (17.32)	44 (21.15)	44 (14.67)	31.4542	0.000*
Unemployed	198 (38.98)	52 (25.00)	146 (48.67)		
Retired	21 (4.13)	14 (6.63)	7 (2.33)		
Number of dependents (n=493)					
None	205 (41.58)	65 (32.34)	140 (47.95)		
1-3	202 (40.97)	88 (43.78)	114 (39.04)	15.8742	0.001*
>3	86 (17.44)	48 (23.88)	38 (13.01)		
Church attendance (n=507)					
More than once a week	6 (1.18)	2 (0.97)	4 (1.33)		
Weekly	317 (62.33)	113 (54.59)	204 (68.00)		
Monthly	45 (8.88)	23 (11.11)	22 (4.00)	13.721	0.017*
Twice a month	54 (10.65)	22 (10.63)	32 (10.67)		
Three times a month	54 (10.65)	28 (13.53)	26 (8.67)		
On special days	31 (6.11)	2 (0.97)	4 (1.33)		
Province (n=508)					
Eastern Cape	35 (6.89)	32 (15.38)	3 (1.00)		
Gauteng	341 (67.13)	102 (49.04)	239 (76.67)		
KwaZulu Natal	26 (5.12)	22 (10.58)	4 (1.33)	80.0714	0.000*
Limpopo	76 (14.76)	34 (16.35)	42 (14.00)_		
Mpumalanga	15 (2.95)	8 (3.85)	7 (2.33)		
Other	15 (2.95)	10 (4.81)	5 (1.67)		

Note: Pearson chi-square test of association; p < 0.05 *.

Table 3
Logistic Regression Model for Factors Associated with Depression

Factors	Odds Ratio	Std. Err.	P>|z|	[95% Conf. Interval]
Age	0.9661833	0.1346194	0.805	.7352934 1.269575
Gender	0.4180118	0.0868338	0.000*	.2782071 .6280714
Marital Status	0.9753962	0.1703701	0.887	.6926339 1.373594
Race	0.5150689	0.2720741	0.209	.1829095 1.450422
Home Language	0.9471767	0.0344995	0.136	.8819161 1.017266
Highest level of education	1.202647	0.17836	0.213	.8992898 1.608335
Employment status	1.083376	0.1069094	0.417	.8928558 1.314551
Number of dependants	1.526352	0.2219949	0.004*	1.147769 2.029806
Church attendance	1.224658	0.0894775	0.006*	1.061264 1.413209
Province	1.085782	0.0959277	0.352	.9131452 1.291057

Note: Binary logistic regression; Std. Err= Standard Error; p < 0.05 *; Conf.Interval= 95 % confidence interval

internationally and locally, with well-established psychometric properties (Sebera et al., 2020; Cassiani-Miranda et al., 2021; Mokwena & Madiga, 2023; Villarreal-Zegarra et al., 2023). The PHQ-9 demonstrated 88.2% specificity and 86.6% sensitivity with a coefficient alpha of 0.87 (Urtasun et al., 2019), while the GAD-7 showed specificity and sensitivity of 84.1% and 73.3%, respectively (Vrublevska et al., 2022). A cut-off score of 5 was applied for both instruments to determine the presence of depressive and anxiety symptoms.

Data collection took place intermittently over a 24-month period, from February 2020 to February 2022, due to disruptions caused by the COVID-19 pandemic. In the initial phase, data were gathered through face-to-face sessions, where field workers distributed questionnaires to qualifying congregants after explaining the objectives and ethical principles of the study. During the period of movement restrictions, data collection transitioned to an online format using Google Docs. The online survey

provided study information, ethical considerations, demographic questions, and the standardized tools. Participation was voluntary, and informed consent was obtained electronically before proceeding with the questionnaires

Data were captured in Microsoft Excel, cleaned, and subsequently analyzed using STATA version 14 (Stata Corporation, College Station, TX, USA). Descriptive statistics such as means, medians, proportions, and standard deviations were used to summarize socio-demographic data. The PHQ-9 scores were categorized into mild (5–9), moderate (10–14), moderately severe (15–19), and severe (20–27) levels of depression. Similarly, the GAD-7 scores were classified as mild (5–9), moderate (10–14), and severe (15 and above). Pearson's chi-square test was applied to examine associations between socio-demographic variables and the presence of depression and anxiety symptoms, with a significance level of p≤0.05. Variables that remained significant in the bivariate analysis

Figure 1
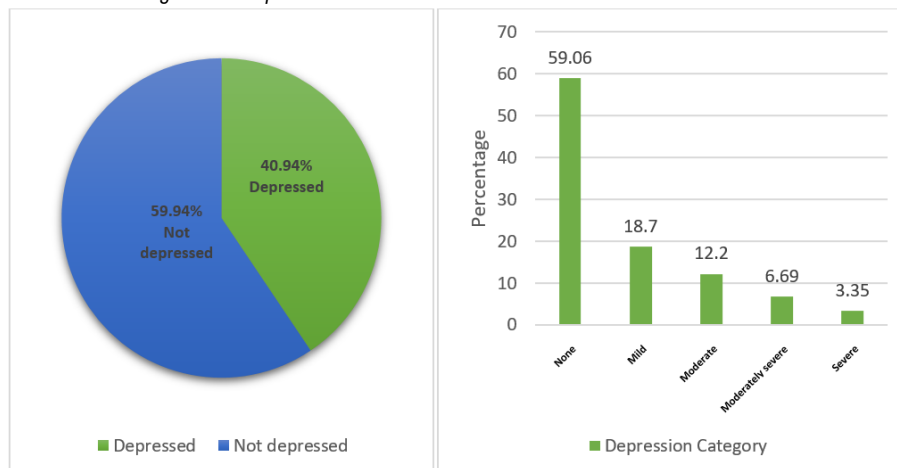*Prevalence and Categories of Depression*

Table 4
Factors Associated with Anxiety Symptoms

Factors	Frequency (%)	Anxiety symptoms		Chi²	p-value
		Yes	No		
Age (n=508)					
≤20	27 (5.31)	16 (8.08)	11 (3.55)		
21-34	208 (40.94)	72 (36.36)	136 (43.87)	8.9077	0.031*
35-49	188 (37.01)	70 (35.35)	118 (38.06)		
≥50	85 (16.73)	40 (20.20)	45 (14.52)		
Gender (n=507)					
Female	301 (59.37)	140 (70.71)	161 (52.10)	17.3136	0.000*
Male	206 (40.63)	58 (29.29)	148 (47.90)		
Race (n=508)					
Black	496 (97.64)	195 (98.48)	301 (97.10)		
White	9 (1.77)	0 (0.00)	9 (2.90)	10.4692	0.005*
Colored	3 (0.59)	3 (1.52)	0 (0.00)		
Home Language (n=508)					
Afrikaans	15 (2.95)	1 (0.51)	14 (4.52)		
English	5 (0.98)	2 (1.01)	3 (0.97)		
Sepedi	95 (18.70)	32 (16.16)	63 (20.32)		
Sesotho	21 (4.13)	10 (5.05)	11 (3.55)		
Setswana	81 (15.94)				
IsiXhosa	74 (14.57)	43 (21.72)	31 (10.00)	45.681	0.000*
IsiSwati	7 (1.38)	3 (1.52)	4 (1.29)		
IsiNdebele	20 (3.94)	2 (1.01)	18 (5.81)		
TshiVenda	26 (5.12)	6 (3.03)	20 (6.45)		
XiTsonga	78 (15.35)	30 (15.15)	48 (15.48)		
Other	36 (7.09)	20 (10.10)	16 (5.16)		
Highest level of education (n=506)					
No formal education	14 (2.77)	11 (5.56)	3 (0.97)		
Primary	9 (1.78)	3 (1.52)	6 (1.95)	18.5322	0.000*
High school	226 (44.66)	70 (35.35)	156 (50.65)		
Tertiary	257 (50.79)	114 (57.58)	143 (46.43)		
Employment status (n=508)					
Employed	201 (39.57)	95 (47.98)	106 (34.19)		
Student	88 (17.32)	36 (18.18)	52 (16.77)	21.9865	0.000*
Unemployed	198 (38.98)	54 (27.27)	144 (46.45)		
Retired	21 (4.13)	13 (6.57)	8 (2.58)		
Number of dependents (n=493)					
None	205 (41.58)	54 (27.27)	151 (48.71)		
1-3	202 (40.97)	88 (44.44)	114 (36.77)	27.0978	0.000*
>3	86 (17.44)	48 (24.24)	38 (12.26)		
Church attendance (n=507)					
More than once a week	6 (1.18)	1 (0.51)	5 (1.61)		
Weekly	317 (62.33)	106 (53.81)	211 (68.06)		
Monthly	45 (8.88)	21 (10.66)	24 (7.74)	21.1088	0.001*
Twice a month	54 (10.65)	22 (11.17)	32 (10.32)		
Three times a month	54 (10.65)	25 (12.96)	29 (9.35)		
On special days	31 (6.11)	22 (11.17)	9 (2.90)		
Province (n=508)					
Eastern Cape	35 (6.89)	28 (14.14)	7 (2.26)		
Gauteng	341 (67.13)	104 (52.53)	237 (76.64)		
KwaZulu Natal	26 (5.12)	24 (12.12)	2 (0.65)	68.2139	0.000*
Limpopo	76 (14.76)	27 (13.64)	49 (15.81)		
Mpumalanga	15 (2.95)	7 (3.54)	8 (2.58)		
Other	15 (2.95)	8 (4.04)	7 (2.26)		

Note: Pearson chi-square test of association; p < 0.05 *

were included in a logistic regression model to identify independent predictors. Given the diversity of denominations, churches were categorized into two groups: mainstream Christianity and Charismatic/Pentecostal Christianity. While both categories are rooted in the Christian faith, mainstream Christianity traces its origins to the Protestant movement, whereas Charismatic and Pentecostal denominations emphasize the role of the Holy Spirit and spiritual gifts in the daily life of believers.

Ethical approval for this study was obtained from the Research Ethics Committee of Sefako Makgatho Health Sciences University (SMUREC/H/62/2019:IR). All participants provided informed consent prior to participation. To safeguard participants' well-being, they were given the contact details of the South African Depression and Anxiety Group (SADAG) to access psychological support in case of distress following their involvement in the study.

RESULTS

Table 1 illustrates the socio-demographic characteristics and church affiliation profile of the study

Table 5
Logistic Regression Model for Factors Associated with Anxiety

Factors	Odds Ratio	Std. Err.	P>|z|	[95% Conf. Interval]
Age	0.9181847	0.1247418	0.53	.7035393 1.198317
Gender	0.4667851	0.0981273	0.000*	.3091562 .704784
Race	0.5388494	0.2810759	0.236	.1938482 1.497867
Home Language	0.9453083	0.034558	0.124	.8799454 1.015526
Highest level of education	0.9521033	0.1385192	0.736	.7158876 1.266261
Employment status	0.9781737	0.0980129	0.826	.8037587 1.190437
Number of dependents	1.674737	0.2388227	0.000*	1.266376 2.21478
Church attendance	1.30631	0.0959357	0.000*	1.131186 1.508546
Province	1.008216	0.0896891	0.927	.8469003 1.200259

Note: Binary logistic regression; Std. Err= Standard Error; p < 0.05 *; Conf.Interval= 95 % confidence interval

participants. A total of 508 individuals from 125 Christian denominations participated, with an equal distribution between Charismatic/Pentecostal (n=254; 50.00%) and mainline Christian churches (n=254; 50.00%).

More than half of the respondents were female (n=301; 59.37%), Black (n=496; 97.64%), and single (n=316; 62.20%). The mean age of participants was 36.96 years. A relatively small proportion of respondents reported having more than three dependents (n=86; 17.44%), while the majority (n=316; 62.33%) attended church weekly.

Table 2 summarizes the bivariate associations between socio-demographic factors and depression symptoms among Christians in South Africa. Significant associations (p ≤ 0.05) were found for age, gender, marital status, race, home language, education, employment, number of dependents, church attendance, and province. Depression was more common among females, young adults (21–34), singles, the employed, and those with tertiary education. Weekly churchgoers and participants with 1–3 dependents also reported higher depression rates. These findings highlight key risk factors for depression within faith-based populations.

Figure 1 illustrates the prevalence and severity of depression symptoms among participants. As shown in the pie chart, 40.94% of the sample reported experiencing depressive symptoms, while 59.06% were not depressed. The bar graph further categorizes the severity levels, indicating that the majority of those affected experienced mild (18.7%) or moderate (12.2%) symptoms. A smaller proportion reported moderately severe (6.69%) and severe (3.35%) symptoms. These findings highlight that while depression is prevalent within this faith-based population, most cases fall within the mild to moderate range.

Table 3 presents the logistic regression model identifying key factors independently associated with depression symptoms among Christian participants in South Africa. After adjusting for other variables, three factors remained statistically significant (p < 0.05): gender, number of dependents, and church attendance. Females had significantly higher odds of experiencing depression (OR = 0.42; p = 0.000), while participants with 1–3 dependents were 1.53 times more likely to report depression symptoms (p = 0.024). Weekly church attendance was also associated with increased odds of depression (OR = 1.22; p = 0.006). These findings suggest that gender roles, caregiving responsibilities, and patterns of religious engagement may influence mental health outcomes within faith-based communities.

Table 4 presents the bivariate analysis of factors associated with anxiety symptoms among Christian participants in South Africa. Significant associations (p < 0.05) were observed for age, gender, race, home language, education level, employment status, number of dependents, church attendance, and province. Anxiety symptoms were more prevalent among females (70.71%), individuals aged 21–34, Black participants, and those speaking isiXhosa. Participants with tertiary education, those employed, and individuals with 1–3 dependents also showed higher levels of anxiety. Weekly church attendance was linked to increased anxiety (53.81%), and Gauteng province recorded the highest prevalence. These findings underscore the influence of demographic and contextual factors on anxiety within faith-based communities.

Figure 2 depicts the prevalence and severity of anxiety symptoms among participants. The pie chart shows that 38.98% of respondents reported anxiety symptoms, while 59.94% were not anxious. The accompanying bar graph categorizes the severity, indicating that the majority experienced mild (18.54%) or moderate (11.64%) anxiety. A smaller portion of the sample reported severe anxiety (3.35%). These findings suggest that while anxiety is present in over one-third of the sample, most cases are not severe, highlighting the importance of early identification and intervention within this population.

(Osei-Tutu et al., 2021; Kim et al., 2021; Lee, Holleman &

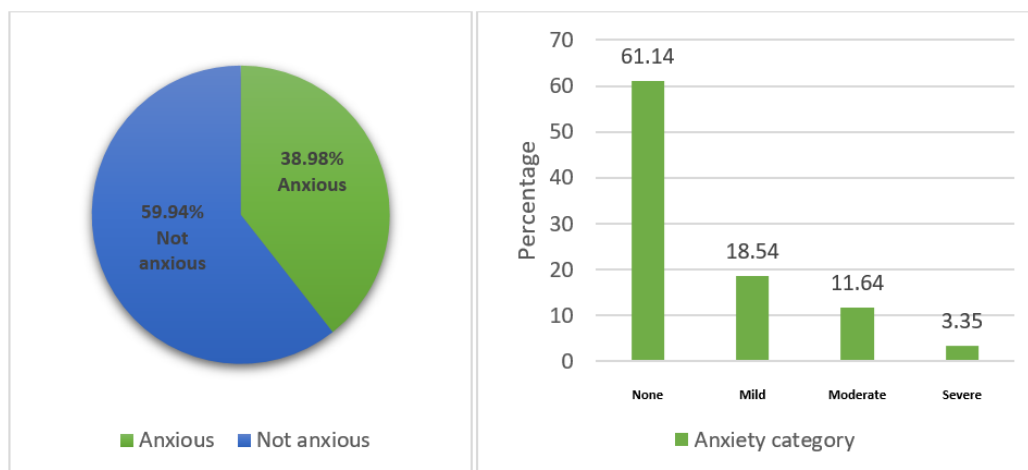Figure 2
Prevalence and Categories of Anxiety

Table 5 displays the logistic regression analysis of factors independently associated with anxiety symptoms among Christians in South Africa. Three variables remained statistically significant predictors of anxiety (p < 0.05): gender, number of dependents, and church attendance. Female participants had significantly higher odds of experiencing anxiety (OR = 0.47; p = 0.000), while those with dependents were 1.67 times more likely to report anxiety symptoms (p = 0.000). Additionally, weekly church attendance was associated with increased anxiety risk (OR = 1.31; p = 0.000). These results suggest that caregiving roles, gender, and religious involvement may contribute to anxiety within faith-based populations.

DISCUSSION

The sample was predominantly Black, female, and single, reflecting the demographics of the national church population (Naicker, 2025). Approximately half of the participants were affiliated with Pentecostal/Charismatic churches, while the other half belonged to mainstream Christian denominations. The largest proportion of respondents were young to middle-aged adults between 25 and 59 years, most of whom attended church services weekly, consistent with prior reports (Lerman et al., 2018). Weekly attendance was notably higher among women, a finding that aligns with existing literature (Santero et al., 2019).

The prevalence of depression and anxiety symptoms in the present study was 40.95% and 38.98%, respectively. These rates are substantially higher than those previously reported in the general South African population, where prevalence was estimated at 25.7% for depression and 17.8% for anxiety (Craig et al., 2022). This elevated prevalence may be attributed to the timing of data collection, which coincided with the pandemic and the closure of religious facilities. The suspension of communal worship disrupted social networks central to religious life, leading to increased isolation and psychological distress

(Cha et al., 2024). This may explain why weekly church attendees in this study were more likely to report symptoms of depression and anxiety, even after controlling for confounders. While some studies have reported no significant association between church attendance and depression (Kaushal et al., 2022), others have demonstrated the protective effects of participation in religious practices against both depression and anxiety (Hill et al. 2020; Davenport & McClintock, 2021; Kim et al., 2023; Hodge et al., 2022; Nguyen et al., 2024). Faith-based activities such as prayer, worship, scripture reading, and encouragement within the church community have been shown to foster coping, resilience, and psychological well-being (Bradshaw et al., 2015; Lloyd et al., 2022; Ramirez, 2024; Stitt, 2024).

The pandemic also generated widespread economic disruption, including job losses and financial hardship (Arthur & Andoh-Quainoo, 2024). This may explain the higher prevalence of depression and anxiety among employed participants in this study, who may have experienced heightened financial pressures and insecurity. Similar findings have been reported in Nigeria, where employment was paradoxically associated with higher depressive symptoms during the pandemic (Wegbom et al., 2023). Financial stress, particularly among participants with dependents, has been linked to increased psychological distress (Cha et al., 2024; Osei-Tutu et al., 2021). In this study, having dependents was similarly associated with greater odds of depression and anxiety. Elevated symptoms were also noted among Black, Xhosa-speaking participants from Gauteng Province, though these associations did not remain significant after regression analysis, likely reflecting the demographic composition of the sample.

Younger participants, particularly those under the age of 50, had higher odds of experiencing depression and anxiety. This may reflect unmet needs within church communities, as younger congregants often face unique cultural and value-based conflicts that may elicit guilt,

shame, and religiously motivated stigma (Ntsanwisi, 2024). Emerging adults may experience wavering faith and doubt as they transition into adulthood, particularly if raised in devout households, which has been correlated with increased depressive and anxiety symptoms (Upenieks, 2023; Upenieks & Thomas, 2021).

Single participants in this study were more likely to experience depression compared to their married counterparts. During the pandemic, single individuals may have been disproportionately affected by restrictions on religious gatherings, as the church often functions as both a spiritual and social support network (Roggenbaum et al., 2023). Weekly church attendance was significantly higher among single participants (58.04%) compared to married participants (35.02%), suggesting that churches may also serve as surrogate families for unmarried congregants. The ban on gatherings likely amplified loneliness, consistent with findings among Finnish Lutheran church workers, where loneliness was strongly associated with psychological distress (Kuusi et al., 2024). Marriage, however, is highly esteemed within Christian communities and viewed as a religious mandate (Ademiluka, 2021). Unmarried individuals may therefore experience marginalization, judgment, or exclusion, further exacerbating negative mental health outcomes (Ademiluka, 2021; Himawan, 2020).

Consistent with global and regional findings, female participants in this study had higher odds of depression and anxiety than their male counterparts. This aligns with evidence attributing increased vulnerability among women to biological, psychosocial, and life-course factors (Hyde & Mezulis, 2020; Cha et al., 2024; Holleman, 2023; Wegbom et al., 2023).

Although Christian congregations are increasingly embracing a holistic view of mental health that acknowledges biomedical and psychosocial factors, stigma persists. In some communities, mental illness continues to be regarded as divine punishment or a manifestation of demonic attack, requiring spiritual deliverance rather than medical intervention (Lloyd & Waller, 2020; Dietz & Lorona, 2023). Such attitudes perpetuate stigma and discourage treatment-seeking behaviors. Enhancing mental health literacy within churches is therefore imperative. Given their strong social influence and community reach, churches are uniquely positioned to implement mental health interventions, thereby reducing the burden of mental disorders (Iheanacho et al., 2021; Lloyd et al., 2022; VanderWeerd, 2024).

The integration of Islamic values into mental health promotion provides useful comparative insights for understanding the role of religion in psychological well-being. Islam emphasizes holistic health, encompassing spiritual, emotional, and social dimensions, and strongly advocates practices such as prayer, remembrance of God (*dhikr*), community support, and family cohesion as mechanisms of resilience (Koenig & Al Shohaib, 2018). Empirical studies have shown that adherence to Islamic practices is associated with reduced stress, lower depression levels, and greater life satisfaction (Najam et al., 2019). These findings parallel those observed within Christian contexts, where religious engagement fosters coping and resilience. However, unlike certain Christian subgroups where mental illness is sometimes stigmatized as spiritual weakness or punishment, Islamic teachings often frame suffering as a test of faith, thereby fostering meaning-making and endurance. This comparative perspective highlights the potential advantage of integrating faith-based coping mechanisms into community-level interventions, as both Christianity and Islam provide frameworks that can buffer against mental distress when interpreted positively.

The findings of this study underscore the complex interplay between religion, mental health, and family well-being. Within Christian congregations, religious practices such as communal worship and scripture reading not only promote individual resilience but also strengthen family bonds by fostering shared values, mutual encouragement, and collective coping. When mental health promotion is incorporated into faith-based activities, entire families may benefit from reduced stigma, improved emotional support, and enhanced intergenerational communication. Nevertheless, the study also reveals potential challenges. Stigma within religious spaces may marginalize unmarried individuals, women, or younger congregants who struggle to reconcile their lived experiences with traditional expectations, thereby placing families at risk of exclusion or strained relationships.

This study's strengths include its large, diverse sample across denominations and the use of validated screening tools. However, limitations must be acknowledged. The convenience sampling method limits generalizability, and the cross-sectional design precludes causal inferences. Additionally, the study was conducted during the pandemic, a period characterized by unprecedented stressors, which may have inflated prevalence estimates. Despite these limitations, the study contributes valuable insights into the mental health burden among South African Christians and highlights the need for religious institutions to actively engage in mental health promotion to enhance family and community well-being.

CONCLUSIONS

This study revealed a high prevalence of depressive and anxiety symptoms among the church-going population in South Africa, exceeding previously reported rates in the general population. The findings demonstrate that socio-demographic factors such as age, gender, marital status, employment status, and denominational affiliation were associated with elevated symptomatology, indicating the need for context-specific and needs-based interventions. These results underscore the dual role of religious institutions as both protective environments and potential spaces where unmet needs may contribute to psychological distress.

The study highlights the critical importance of expanding mental health research within faith-based communities, where religion continues to play a central role in shaping health behaviors and coping strategies. The integration of mental health awareness and evidence-based interventions into church settings holds promise for reducing stigma, improving access to care, and strengthening community resilience. By leveraging the influence and reach of faith institutions, tailored programs can not only provide resources for individuals but also promote family and community well-being, thereby alleviating the broader burden of mental health disorders. Future research should further explore denominational differences, intergenerational needs, and the potential of integrating spiritual resources with mental health promotion. Such efforts will contribute to advancing family health while ensuring that churches remain not only centers of spiritual growth but also supportive spaces for mental well-being.

AUTHORS' CONTRIBUTIONS
Kebogile Mokwena designed and formulated the study and reviewed manuscript. Khomotso Maaga wrote and revised the manuscript, enrolled, collected and analyzed the data, performed the field work. Oria Ramatsui and Vukile M. Ngema wrote and revised the manuscript, Machaka Ravhengani collected the data, wrote and revised the manuscript. All authors read and approved the final manuscript

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COMPETING INTERESTS
The author(s) declare no potential conflict of interest with respect to the research, authorship, and/or publication of this article.

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