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Social support as leverage? A quantitative study of social support as a mediator of the relationship between disability/activity limitations and psychological distress among young adults in Ghana

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Abstract

Background Research has shown that young adults encounter formidable barriers in their day-to-day living experiences. In particular, there is evidence that young adults are at high risk of psychological distress and facing activity limitations. This has contributed to discussions on deploying innovative measures to address challenges such as psychological distress and activity limitations, which are prevalent among young adults. However, in the Ghanaian context, although social support is engrained in local culture, its role in addressing social menace is unresearched. The overarching aim of this study was to explore the mediating role of social support in the relationship between disability/activity limitations and psychological distress among young adults in Ghana.

Method In this quantitative study, 1200 young adults completed the World Disability Assessment Schedule version 2.0, the Multidimensional Scale of Perceived Social Support, and the Depression, Anxiety and Stress (DASS-21) scale. The instruments were validated by performing confirmatory factor analyses before calculating means, correlation, multiple regression and mediation analyses.

Results The findings of this study provide theoretical insight into the three scales that were completed by the young adults who participated in this study. The findings revealed moderate to strong correlations between the domains of social support, psychological distress and disability/activity limitations. Social support mediated the relationship between activity limitations and psychological distress.

Conclusion The study concludes with a recommendation for targeted training for young adults. The implications of this study for leveraging social support among young adults and other study implications are discussed in detail.

Keywords Social menace, Culture, Support networks, Mental health, Ghana

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Introduction

Young adulthood is an important stage in human development [1, 2]. As a polytomous concept, young adulthood has been defined differently by authors and institutions. While the National Assessment of Education Progress referred to young adults as individuals between the ages of 21 and 25 years, the Educational Resources Information Clearinghouse defined young adults as people aged between 18 years and 22 years. The African Youth Charter defines young adults as persons between the ages of 15 and 29 years [3]. However, in this study, in line with *Ghana's Youth Policy*, a youth was operationally defined as a person aged between 18 and 35 years [4]. Globally, young adults between the ages of 10 and 24 years constitute 1.8 billion of the world population [5]. In the Ghanaian context, according to official government youth policy, 36% of the population is young [4]. Unsurprisingly, internationally, governments advocate placing youths at the center of national development [6], including youth programs, and developing policies to enhance the development of young adults [7].

Ghana is a west African country with an estimated population of 30 million [8]. Contemporary discussions in Ghana and other developing countries have centered on ways through which the leadership of the country could utilize its human resources for national development [9, 10]. For example, Ghana's developmental efforts have been streamlined with the UN SDGs, which is a global effort toward alleviating poverty and creating a sustainable society [11]. The government of Ghana has participated in a number of international discussions on building formidable systems for national development [12, 13]. While there have been attempts to build institutions such as schools [14, 15], limited attention has been given to sociocultural practices that could help address societal menaces such as activity limitations and psychosocial distress among young people, which could derail national development [16–19].

There is evidence that young adulthood intersects with the biological, social and environmental ecosystems of individuals [20, 21]. Biologically, there is maturation of the brain and emotional processing. Environmentally, many young adults transition from home to live independently. Here, new responsibilities, changes in their natural habitat and support networks are assumed [22–24]. Specifically, some young adults have moved from their country, city, town or village in search of opportunities or new experiences [25]. Socially, many young adults are in the process of transitioning from home school to work or developing marital relationships [26, 27]. For example, marrying and bearing children come with responsibility for both young adults who have moved from being taken care of, to caring for others [28–30]. It is evident that a number of factors can influence the development

of young adults. This lends support for the development of robust systems such as social support systems, which could help alleviate the burden on young adults.

Young adults face a variety of challenges as they navigate the transition to adulthood [26, 31]. One of the major challenges for young adults is psychosocial distress [19, 32, 33]. Psychological distress is a concept of emotional pain symptoms, such as anxiety, depression, and stress [34]. It is a nonspecific indicator of emotional and mental burdens [35]. Another problem faced by young adults is activity limitations, which refer to problems an individual may experience in carrying out actions or tasks regularly [36–39]. Global estimates suggest that over 33% of participants in selected studies report at least one activity limitation; the prevalence is higher in low- and middle-income countries [40]. While the prevalence of activity limitation seemed higher among young adults, research has rarely explored the level of activity limitation among young adults in non-western context. Evidence suggests that, of the more than 200 million young adults with disabilities globally, the majority (approximately 80%) reside in low- and middle-income countries [41], including Ghana. However, there are concerns that more young adults could be living with hidden disabilities. Unfortunately, some have not been identified because of poor or non-existent disability surveillance system [42–47]. This contributes to many young adults living with a hidden disability [48], which degenerate over time [49, 50]. In order to improve early detection system, it is important to mainstream research on activity limitation among young adults in non-western context such as Ghana.

Activity limitations or restrictions are associated with distress, social support may moderate or mediate this relationship, buffering any deleterious effects or changing its course [51]. Higher levels of psychological distress, in terms of the presence of depressive symptoms, anxiety and comorbid anxiety, and depression are strongly correlated with physical functional limitations [52]. Depressive symptoms are associated with activity limitations in daily life among adults. For example [53], in a longitudinal study, reported that ADL limitations predict changes in depressive symptoms among middle-aged and elderly individuals. At the population level, those experiencing chronic disease and frequent activity limitations report increased serious psychological distress [54–58]. This suggests that reducing the risk of activity limitations among young people lies in the government creating a robust support system.

Social support is emerging as instrumental for reducing psychological distress and mental health [59–64]. Research has consistently shown that strong social support networks that include family, peers, mentors, and community resources can buffer the negative effects of stress, promote resilience, and improve mental health

and life satisfaction [62–64]. Social support is the help, aid, emotional care, and material assistance that people receive from other people or can influence health, well-being, participation/autonomy, etc [20]. Recent research adopting a socio-ecological lens shows that individuals who perceive higher levels of social support report lower levels of depression, anxiety and stress and greater wellbeing. For example, a 2025 study revealed that social support was significantly and directly linked to improved mental health by reducing perceived stress, which was based on Lazarus and Folkman's stress-coping model [65]. In turn, among young adults who face multiple developmental, social and role transitions, the presence of friends, family or peer networks has been shown to reduce the risk of severe psychological distress. A notable Norwegian study reported that among young adults, those with greater social support experienced significantly lower rates of depression and anxiety [66]. When we focus on young adults facing psychosocial distress and activity limitations, social support emerges not only as a protective factor but also as a potential intervention lever. Young adulthood often involves changes in autonomy, educational and work demands, and social role shifts. These changes can lead to isolation or disconnection. Research indicates that social support can strengthen adaptive coping. For example, a study showed that social support improved psychological flexibility, which then indirectly reduced psychological distress by reducing avoidant coping and promoting approach coping strategies [66].

While discussions on the role of social support are ongoing, there is limited evidence on the role of social support in mitigating the relationship between psychological distress and activity limitations in nonwestern contexts. Sub-Saharan African countries, including Ghana, have a communal system in which people live and support each other [65, 67, 68]. However, issues of activity limitations and psychological distress interfere with the local culture [69, 70]. For example, activity limitations are erroneously linked to superstitious beliefs as emanating from evil forces [71, 72]. Similarly, psychological distress is attributed to the spiritual forces that infest an individual [71, 73–75]. These misconceptions negatively affect mainstreaming, disclosure and interventions appropriate for mitigating the burden of both psychological distress and activity limitations [75, 76]. This research has the potential to provide general contextual evidence on existing practices, such as communal support systems, which could be leveraged to alleviate the burden of psychological distress and activity limitations.

The current study is relevant in Ghana because of the limited availability of support systems for vulnerable groups. In Ghana and many sub-Saharan African contexts, there are weak institutional support programmes

for vulnerable individuals, such as those living with activity limitations or psychological distress [77, 78]. For example, an assessment of Ghana's mental health system revealed that although the 2012 Mental Health Act (Act 846) and associated regulatory instrument exist, only 1.4% of the health ministry's budget was allocated to mental health in 2020, and the national health insurance scheme does not adequately cover mental health services [79]. Similarly, research among community-based mental health professionals in Ghana identified poor institutional support, including operating largely alone, inadequate financing for outreach, and resource constraints, as significant contributors to psychological distress among practitioners themselves ([80]. On the disability and broader vulnerability side, a UNICEF-led study revealed that three major national programmes, the Livelihood Empowerment Against Poverty (LEAP), the District Assemblies Common Fund (DAF) and the National Health Insurance Scheme (NHIS), have significant gaps in reaching people with disabilities or chronic activity limitations. These gaps stem from inadequate definitions of vulnerability, weak targeting, and poor coordination between formal programmes and community support [81].

Furthermore, a recent study noted that formal social-protection efforts operate largely independently from traditional informal networks and that policymakers have made no effort to integrate formal and informal support systems, thereby limiting the ability of institutional programmes to meet the diverse needs of vulnerable groups in Ghana [65]. Taken together, the literature indicates that while institutional support programmes exist in Ghana, their coverage, coordination, resource allocation and responsiveness to vulnerable groups, especially those with activity limitations and psychological distress, are substantially inadequate, undermining their potential effectiveness. There is a need for a strength-based system conterminous with the local context, which could be used to address problems faced by young adults. In contrast, this study assessed the mediating role of social support in the relationship between psychological distress and activity limitations.

Theoretical framework

The current study was guided by social support theory [82, 83]. Social support has been described as multifaceted and elusive [64, 84]. This has resulted in it being studied, measured and theorized differently by researchers. According to Drageset [85], social support encompasses the acceptance, control and competence of individuals. There is a consensus that social support is malleable in society. There are enormous changes that individuals face in society [86, 87]. This signifies the necessity for an individual to receive support from

diverse sources to cope with the numerous challenges they encounter in their daily living experiences [88–90]. Thus, it is essential for the individual to have the capacity to accept support from diverse sources [82, 83]. Individual characteristics such as character and biology could influence individuals' level of acceptance of social support. For instance, there are differences between people in society. Understanding social support should be studied within the context of individual factors that could impact one's acceptance.

Sarason [91] proposed two major factors that impact the acceptance of social support: a sense of support and a sense of acceptance. In terms of support, this refers to the notion that there are people in society who are ready to support vulnerable groups or others in society [83, 85, 91]. These individuals are willing to put effort and sacrifice resources to ensure that other people feel supported in society. This is particularly important, as a sense of support helps individuals overcome challenges such as psychological stress and difficulties. Second, a sense of acceptance connotes that the individual feels that others accept them and are thus willing to offer support to them [83, 85, 91]. Vulnerable groups are aware of their personal limitations. Consequently, they are unwilling to socialize or relate with others. Regardless, initiating acceptance by others would enhance their well-being [83, 92–94]. This is an important personal attribute that helps individuals cope with difficulties and feelings of belonging in society.

Over time, people are expected to be comfortable with the support they receive from others in society [83]. There is diversity among people in society. However, each member of society has a way through which they relate with others. People are born in a society, which also influences their development. For instance, in every society, people are surrounded by networks of significant others, such as friends, parents, siblings and members of the society. In the event that people feel that they live in a secure supportive network system where they are accepted or embraced, they are confident in the source of support from others [83]. Here, the effectiveness of the attachment could explain how well individuals would be open to receiving social support.

When individuals perceive acceptance and support by others, they develop control over issues that could derail their development [82, 83]. They have confidence that there is a robust system within which they are embraced and supported to enjoy their innate potential. Once there is a stable support system, the individual develops the requisite self-efficacy to contribute to the development of society [83]. They develop the competence that they are living in a system where there are people in their network who could come to their aide in time of difficulty, encourage and support to attain their goals. Consequently, they would be in a position to participate in behaviours that

are appropriate for their development. In this study, we reasoned that an effective social support system would have an impact on the activity limitations and psychological distress faced by young adults. A positive synergy shows that young adults live within a system where they have appropriate support from the environment, embraced and have confidence in the supportive system available to them [92, 94, 95].

Activity limitation/disability and social support

The relationship between activity limitations/disabilities and social support has been extensively researched [96–98]. For example, disability-related limitations in daily living are reportedly associated with unmet needs; social support may mediate or moderate this relationship [99]. A study in Malaysia reported a significant association between low social support and more limitations in ADLs and IADLs [100]. Among adults, aspects of social capital (neighbors, social participation, sense of belonging, etc.) are interrelated with performance in ADLs and HRQOL [101]. A longitudinal study reported an increase in unmet needs with greater limitations in daily living [99]. Participation in social activities and meaningful leisure, volunteer, and other such activities is lower in people with activity limitations.

Activity limitations are determined by contextual influences, such as environmental and social influences. Notably, social support is an environmental factor that interacts with personal and health-related factors [85, 102, 103]. To elaborate, engagement in physical activity in adolescents and adults with disability is largely determined by environmental factors, specifically social support [20, 104]. Social support is described as formal and informal assistance, understanding, or advice/reinforcement [105, 106] that enables the ability, opportunity and motivation of people with disabilities to be active [20]. Empirical data consistently indicate that social support promotes physical activity among children, young people and older adults with disabilities [107–110]. However, many people living with a form of activity limitation and the levels and types of social support are inadequate within community settings or are only available from home [20]. In nonwestern contexts such as Ghana, the synergy between activity limitations and social support has yet to receive scholarly insight.

Participation in community activities and the use of facilities are particularly important for the transition from adolescence to young adulthood. During this transition, there was a rapid decline in physical activity, reduced social interaction, increased social isolation, increased psychological distress [111, 112] and decreased awareness of targeted support services [31, 113, 114]. Most importantly, participants with disabilities who are physically active often report social connections,

opportunities to be socially and socially independent and confidence within the community [104, 107]. Health behaviour is linked to physical activity through ideas about social support. Self-determination theory [115] and social cognitive theory [116] suggest that health behaviour can be enhanced through social dynamics and observational learning. The availability of social support, social connectivity, and a suitable physical context are all critical to enabling people with disabilities to engage in physical activities [20]. However, there is limited scholarly insight into the extent to which activity limitations influence social support. This study helps gather useful information that could guide future initiatives aimed at promoting social inclusion among persons living with activity limitations.

Psychological distress and social support

Studies often test whether social support mediates the impacts of stressors on psychological distress or moderates the effect of stress. Social support is a protective factor in most conceptually similar resilience processes, helping individuals maintain or recover mental health in the face of adversity [32]. Many studies have demonstrated the positive impacts of social support on mental health outcomes, such as reduced depressive and anxiety symptoms, increased satisfaction with life, and overall psychological resilience [117–119]. Perceived social support among university students is a robust predictor of lower levels of psychological distress, including depressive symptoms, anxiety, and stress [60, 120]. For example, studies from this year indicate that higher levels of perceived social support are negatively associated with psychological distress [121]. Studies during the COVID-19 pandemic have demonstrated an inverse association between social support and depressive symptoms, general anxiety, and stress [122]. Large-scale meta-analyses provide support for the negative association between social support and vulnerability to psychological crisis in financially disadvantaged undergraduates, which is often mediated by psychological resilience [123]. In elderly people with chronic conditions, social support can moderate the effect of perceived burdensomeness on psychological well-being; increased social support is associated with lower distress [124]. A large meta-analysis of online social support interventions reported a small, statistically significant, immediate reduction in psychological distress. The follow-up effects were sometimes unclear or non-significant ([125]. Group social support interventions for chronic illness patients are generally effective at improving psychosocial outcomes, including distress, but their effect sizes and consistency differ greatly [126–128].

In some studies, perceived stress has been shown to mediate the relationship between social support and outcomes such as depression and anxiety (for example, 58).

There is also evidence that social support increases psychological flexibility, which, in turn, is related to more adaptive coping, lower use of avoidant coping, and thus lower distress [129]. Social support is often an expression of resilience. The more resilient one is, the stronger the buffering or beneficial effect of support will be [35]. Various types of social support have been identified, including emotional support, informational, and practical help, and they tend to all play roles, but their relative importance typically varies greatly depending on the context [124]. For adults, there are various sources of distress. Interventional studies on older adults have shown mixed effects, with some interventions proven to reduce depressive symptoms but generally resulting in heterogeneous results [130]. There is a substantial body of work among university students, financially disadvantaged individuals, etc., that provides very strong evidence of a strong relationship between social support and distress [121]. Chronic physical health conditions also mean burdensomeness, functional limitations, and so on, and social support also helps reduce distress in these groups [124].

Current study

Overall, the literature demonstrates a consistently robust inverse relationship between social support and distress [131–133]. Moreover, there is a relationship between social support and activity limitations [134, 135]. There is also evidence of a relationship between activity limitations and psychological distress [136, 137]. There is no doubt that both activity limitation and psychological distress are public health menace which could derail the development of young adults [138–141]. Yet, it is possible that having a robust social support system could neutralise risks of activity limitations and psychological distress. In this study, we reasoned that social support could mitigate the risk associated with activity limitations and psychological distress. However, such conclusions cannot be drawn in nonwestern countries, such as Ghana, where there is limited information about the role of social support in reducing psychological distress and activity limitation among young adults. Young people in Ghana are navigating communitarian societies, which differ from those in Western countries. However, to the best of our knowledge, no study has attempted to assess the ability of social support to serve as a buffer for such relationships. This finding lends support for the development of contextual evidence that could guide future practices. The overarching aim of this study was to assess the combined contribution of activity limitations and psychological distress to social support. The following research questions were addressed:

1. What is the relationship between activity limitations, social support and psychological distress among young adults in Ghana?
2. What is the contribution of activity limitations and psychological distress to the variance in social support among young adults in Ghana?
3. What is the mediating effect of social support on the relationship between activity limitations and the psychological distress of young adults in Ghana?

Methods

Study participants

The current research utilized a descriptive survey design. According to Ary et al. [142], drawing on a large sample to develop a broad understanding of a given issue within a context is essential. This justifies the use of a quantitative method to ascertain relationships and factors that could impact social support.

A random sampling technique was used to recruit young adults who are residents of the Central regional capital, Cape Coast, that hosts several tertiary institutions, such as universities, teacher training colleges and nursing training, in Ghana. Central regional is one of the major cities within which formal education began in Ghana. It is historically linked to education and hosts a sizeable population of young adults in Ghana. The study was guided by the following inclusion criteria: (a) aged 18–35 years and (b) the capacity to consent to participate in this study.

Even though 1300 questionnaires were distributed to the participants, only 1200 were completed and given to the researchers. Hence, the response rate of the data collection was 92%. Many of the participants were females (61%), whereas the remaining 39% were males. With respect to religious affiliation, even though 69% were Christians, 28% were members of the Islamic region, whereas the remaining 3% belonged to traditional and

other religious groups in Ghana. In addition, while many of the students did not exercise weekly (51%), 49% reported that they engaged in weekly exercise. Moreover, the average age of the students who were part of this research was 21.16 years ($SD = 1.98$).

Instrument

A four-part instrument was used for data collection. The first part collected demographic information such as age, sex and participation in exercise (see Table 1).

The second part of the instrument was the 36-item World Disability Assessment Schedule version 2.0 (WHODAS 2.0), which is anchored on a five-point scale with responses ranging from 1 (none) to 5 (profound) [143]. The instrument is made up of six subscales: cognitive domain ($n = 6$ items), getting around ($n = 5$ items), self-care ($n = 4$ items), getting alone with people ($n = 5$ items), life activities ($n = 8$ items) and participation in society ($n = 8$ items). In previous studies, the 36-item instrument yielded appropriate reliability scores [144–146]. A composite mean score of at least 3.5 was interpreted as disability/activity limitation among the study participants. The WHODAS 2.0 has been validated in previous studies [147, 148]. In this study, the computation of Cronbach's alpha yielded a score of 0.95.

The third part was the 12-item Multidimensional Scale of Perceived Social Support [149]. The instrument is made up of three subscales with four items each: significant others [150], family [151] and friends [152]. In previous studies, the MPSS yielded appropriate psychometric properties [153, 154]. The MPSS is anchored on a seven-point Likert scale, with a mean score of least 4.5 interpreted as high social support. In this study, the reliability computed via Cronbach's alpha was 0.94.

The four-item scale was the Depression, Anxiety and Stress (DASS-21) scale, which consists of 21 items [155]. The instrument has three subscales, each with seven items. The instrument is widely used and has appropriate psychometric properties [156]. The instrument has a four-point response ranging from 0 (never) to 3 (almost always). A mean score of at least 1.5 was interpreted as a risk of psychological risk among the study participants. In this study, the calculation of reliability scores yielded a score of 0.89.

Procedure

The College of Education Studies Ethical Review Board at the University of Cape Coast, Ghana, provided ethical approval for the present study (reference: CES/ERB/UCC/EDU/08-104). The study was conducted in accordance with the Declaration of Helsinki.

The participants were randomly sampled to complete the survey questionnaires. A hardcopy version of the instrument was given to the participants of this research

Table 1 Demographic characteristics of the study participants

Category	Frequency	Percentage (%)
Gender		
Male	472	39%
Female	728	61%
Age		
18 – 20 years	569	48%
21 – 24 years	568	47%
At least 25 years	63	5%
Religion		
Christian	823	69%
Islamic	334	28%
Traditional and others	43	3%
Weekly Exercise		
Yes	593	49%
No	607	51%

to complete within two weeks. The questionnaires were completed in English between February 2024 and July 2024. All the students provided written informed consent before taking part in the research. The participants were not given any rewards for being part of this study. They were also assured that the data collected from them would be kept anonymous and confidential.

Data analysis

The data were analysed via the IBM Statistical Package for Social Science version 29. Observations of the box-plots, Q-Q plots and histograms supported the normality of the data for the parametric tests. Consequently, reliability was calculated via Cronbach's alpha and mean scores to ascertain the levels of activity limitations, distress and social support.

For research question 1, correlation coefficients were calculated to assess the relationships among the variables. The correlation coefficients were interpreted as follows [157]: small (0.10 – 0.29), moderate (0.30 – 0.49) and large (at least 0.50).

For research question 2, hierarchical multiple regressions [157] were computed to explore the contribution of psychological distress and activity limitations to the variance in social support. The computations were conducted at subscale levels to ascertain specific variables that could enhance our understanding. In step 1, the predictors were added, whereas the demographic variables were added in step 2. The individual and combined impacts of the predictors and demographics on social support were assessed. The following assumptions were made: linearity, homoscedasticity and multicollinearity.

For research question 3, Andrew Hayes' [158] Mediation/Moderation version 5 was embedded in SPSS to perform the mediation analysis. The following specifications were used: Mediation Method 4, bootstrapping at 5000 and a confidence interval of 95% was used. Social support

was used as a mediator to ascertain its effect on the relationship between activity limitations and psychological distress.

Results

Initial mean scores were calculated to explore participants' ratings of social support, psychological distress and activity disability/limitations. For social support, the overall mean score was 4.36 (1.33), with the subscales distributed as follows: significant others ($M=4.56$, $SD=1.56$), family support ($M=4.75$, $SD=1.55$) and friends ($M=3.76$, $SD=1.41$).

With respect to disability/activity limitations, the overall mean score was 2.48 (0.70) with the subscale as follows: cognitive domain ($M=2.55$, $SD=0.75$), getting around ($M=2.56$, $SD=0.87$), self-care ($M=2.33$, $SD=1.03$), getting along with people ($M=2.48$, $SD=0.75$), life activities ($M=2.56$, $SD=0.94$) and participation in society ($M=2.39$, $SD=0.75$).

In terms of psychological distress, the mean overall mean score was 1.05 (0.46), as were the subscale scores, as follows: depression ($M=1.09$, $SD=0.58$), anxiety ($M=0.96$, $SD=0.50$) and stress ($M=1.09$, $SD=0.54$).

Correlations between variables

Moderate to strong correlations were found between activity limitations, psychological distress and social support (activity limitations and psychological distress, $r=.53$, $p=.001$; activity limitations and social support, $r=-.43$, $p=.001$; and psychological distress and social support, $r=-.38$, $p=.001$). Table 2 summarizes the correlations between the variables in the domains. Large correlations were observed between the domains of activity limitation. Additionally, small to moderate negative correlations were found between social support, the domains of activity limitation and psychological distress.

Table 2 Relationships between variables

	1	2	3	4	5	6	7	8	9	10	11	12
1 Cognitive Domain												
2 Getting Around	0.62**											
3 Self-Care	0.80**	0.66**										
4 Getting Along with Peo.	0.61**	0.46**	0.43**									
5 Life Activities	0.82**	0.52**	0.85**	0.47**								
6 Participation in Society	0.63**	0.59**	0.62**	0.51**	0.64**							
7 Depression	0.60**	0.40**	0.50**	0.41**	0.56**	0.44**						
8 Anxiety	0.34**	0.21**	0.29**	0.27**	0.31**	0.37**	0.57**					
9 Stress	0.36**	0.28**	0.30**	0.31**	0.32**	0.35**	0.53**	0.66**				
10 Significant others	-0.30**	-0.28**	-0.34**	-0.15**	-0.35**	-0.21**	-0.49**	-0.26**	-0.32**			
11 Family support	-0.26**	-0.27**	-0.30**	-0.22**	-0.27**	-0.24**	-0.40**	-0.26**	-0.19**	0.77**		
12 friend support	-0.36**	-0.29**	-0.33**	-0.17**	-0.36**	-0.28**	-0.37**	-0.25**	-0.31**	0.62**	0.61**	

Relationships between variables

** $p \leq .01$; Getting along with Peo. = Getting Along with People

Activity limitations and psychological distress as predictors of significant others

In step 1, the significant other was regressed directly on the subscales of psychological distress and activity limitations (see Table 3). Activity limitations and psychological distress made a 29% contribution to the variance in significant others, $R^2 = 0.29$; $F(9, 1190) = 52.60$, $p = .001$, at the 95% confidence interval. Although all the subscales made significant contributions to the variance in significant others, depression ($\beta = -0.44$, $p = .001$) made a greater contribution to the variance in significant others.

In Step 2, the demographic variables alone contributed only a 1% significant contribution to the variance in significant others, R^2 change = 0.01; $F(4, 1186) = 2.46$, $p = .001$, at the 95% confidence interval. The combined predictors made a 29% contribution to the variance in significant others, $R^2 = 0.29$; $F(13, 1186) = 37.35$, $p = .001$, at the 95% confidence interval. In step 2, gender and age were the only variables that did not make significant contributions to the variance in significant others. Once again, depression ($\beta = -0.43$, $p = .001$) made a greater contribution to the variance in significant others.

Activity limitations and psychological distress as predictors of family support

The impact of family support on activity limitations and psychological distress was explored (see Table 4). In step 1, activity limitations and psychological distress made a 20% significant contribution to the variance in family support, $R^2 = 0.20$; $F(9, 1190) = 32.37$, $p = .001$. While all the subscales of psychological distress contributed significantly to the variance in family support, with respect to activity limitation, only two subscales did not significantly contribute to the variance in family support, Life Activities and Participation in Society. Here, depression ($\beta = -0.36$, $p = .001$) made a greater contribution to the variance in family support.

In step 2, the demographic variables contributed only 4% of the variance in family support, R^2 change = 0.04; $F(4, 1186) = 15.10$, $p = .001$. The combined activity limitation, psychological distress and demographic variables made a 24% contribution to the variance in family support, $R^2 = 0.24$; $F(13, 1186) = 28.12$, $p = .001$. With respect to activity limitations, three subscales (Getting Along with People, Life Activities and Participation in Society) did not significantly contribute to the variance in family support. In relation to psychological distress, anxiety made no contribution to the variance in family support. Among the demographic variables, only sex and weekly exercise contributed significantly to the variance in family support. However, depression ($\beta = -0.34$, $p = .001$) made a more significant contribution to the variance in family support.

Activity limitations and psychological distress as predictors of friend support

Table 5 presents a summary of the predictors of friend support. In step 1, activity limitations and psychological distress made a 20% significant contribution to the variance in friends' support, $R^2 = 0.20$; $F(9, 1190) = 33.55$, $p = .001$. With respect to activity limitations, two subscales, self-care and participation in society, did not significantly contribute to the variance in friends' support. With respect to psychological distress, only anxiety did not significantly contribute to friends' support. The subscale of life activity ($\beta = -0.17$, $p = .001$) made greater contributions to the variance in friends' support.

In step 2, the demographic variables contributed 2% of the variance in friends' support, R^2 change = 0.02; $F(4, 1186) = 6.00$, $p = .001$. The combination of demographics, activity limitations and psychological distress significantly contributed to the variance in friends' support, $R^2 = 0.22$; $F(13, 1186) = 25.47$, $p = .001$. With respect to activity limitations, three subscales (getting around, self-care and participation in society) did not significantly contribute to the variance in friends' support. In terms of psychological distress, anxiety did not significantly contribute to the variance in friends' support. Additionally, in terms of demographic variables, age significantly contributed to the variance in friends' support. Once again, only life activities ($\beta = -0.20$, $p = .001$) made a significant contribution to the variance in friends' support.

Social support as a mediator

Andrew Hayes' mediation method 4 was used to estimate the mediating effect of social support on the relationship between activity limitations and psychological distress. Both activity limitations ($\beta = 0.28$, $t = 17.02$, $p = .001$, 95% CI [0.25, 0.32]) and social support ($\beta = -0.09$, $t = -10.38$, $p = .001$, 95% CI [-0.11, -0.07]) had direct effects on psychological distress, $R^2 = 0.34$; $F(2, 1197) = 310.57$. Additionally, social support had a direct effect on activity limitation, $\beta = -0.72$, $t = -14.21$, $p = .001$; $R^2 = 0.14$; $F(1, 1198) = 202.04$, $p = .001$. Moreover, social support has an indirect mediating effect on the relationship between psychological distress and activity limitations, $\beta = 0.07$, $p = .01$, 95% CI (0.05, 09).

Discussion

The goals of the present study were to assess (1) the relationships among activity limitations, social support and psychological distress; (2) the combined effects of activity limitations and psychological distress on social support; and (3) the mediating role of social support in the relationship between activity limitations and psychological distress.

Notably, the participants who took part in this study rated themselves highly in terms of social support. The

Table 3 Activity limitations and psychological distress as predictors of significant others

	Unst. Beta	S.E.	Stand. Beta	t	p	Confidence Interval	
						Lower	Upper
Step 1							
Cognitive Domain	0.37	0.11	0.18	3.34	0.001**	0.15	0.58
Getting Around	-0.21	0.07	-0.12	-3.23	0.001**	-0.34	-0.08
Self-Care	-0.19	0.08	-0.12	-2.23	0.03*	-0.35	-0.02
Getting Along with People	0.16	0.07	0.08	2.30	0.02*	0.02	0.29
Life Activities	-0.27	0.09	-0.16	-2.90	0.004**	-0.45	-0.09
Participation in Society	0.22	0.08	0.11	2.93	0.004**	0.07	0.37
Depression	-1.19	0.10	-0.44	-12.25	0.001**	-1.38	-1.0
Anxiety	0.23	0.11	0.08	2.10	0.04*	0.02	0.45
Stress	-0.41	0.10	-0.14	-4.15	0.001**	-0.60	-0.22
Step 2							
Cognitive Domain	0.39	0.11	0.19	3.46	0.001**	0.17	0.60
Getting Around	-0.22	0.07	-0.12	-3.22	0.001**	-0.35	-0.08
Self-Care	-0.21	0.09	-0.14	-2.49	0.01**	-0.38	-0.05
Getting Along with People	0.19	0.07	0.09	2.72	0.01**	0.05	0.33
Life Activities	-0.24	0.09	-0.15	-2.59	0.01**	-0.42	-0.06
Participation in Society	0.186	0.08	0.09	2.40	0.02*	0.03	0.34
Depression	-1.16	0.10	-0.43	-11.77	0.001**	-1.35	-0.97
Anxiety	0.26	0.11	0.09	2.31	0.02*	0.04	0.48
Stress	-0.43	0.10	-0.15	-4.31	0.001**	-0.62	-0.23
Gender	0.25	0.09	0.08	2.80	0.01**	0.08	0.43
Age	0.02	0.07	0.01	0.25	0.80	-0.12	0.16
Religion	0.01	0.07	0.01	0.19	0.85	-0.12	0.15
Weekly Exercise	0.16	0.08	0.05	1.95	0.05*	-0.001	0.33

**p ≤ .01; *p ≤ .05

Table 4 Activity limitations and psychological distress as predictors of family support

	Unst. Beta	S.E.	Stand. Beta	t	P	Confidence Interval	
						Lower	Upper
Step 1							
Cognitive Domain	0.40	0.12	0.20	3.50	0.001**	0.18	0.63
Getting Around	-0.15	0.07	-0.08	-2.13	0.03*	-0.29	-0.01
Self-Care	-0.37	0.09	-0.25	-4.19	0.001**	-0.54	-0.20
Getting Along with People	-0.18	0.07	-0.09	-2.60	0.01**	-0.32	-0.05
Life Activities	0.11	0.10	0.07	1.15	0.25	-0.08	0.30
Participation in Society	-0.004	0.08	-0.002	-0.05	0.96	-0.16	0.15
Depression	-0.95	0.10	-0.36	-9.30	0.001**	-1.15	-0.75
Anxiety	-0.28	0.12	-0.09	-2.40	0.02*	-0.50	-0.05
Stress	0.25	0.10	0.09	2.45	0.01**	0.05	0.46
Step 2							
Cognitive Domain	0.45	0.12	0.22	3.92	0.001**	0.23	0.68
Getting Around	-0.15	0.07	-0.08	-2.13	0.03*	-0.28	-0.01
Self-Care	-0.43	0.09	-0.29	-4.90	0.001**	-0.60	-0.26
Getting Along with People	-0.10	0.07	-0.05	-1.36	0.17	-0.24	0.04
Life Activities	0.17	0.10	0.11	1.81	0.07	-0.01	0.36
Participation in Society	-0.11	0.08	-0.05	-1.33	0.18	-0.26	0.05
Depression	-0.90	0.10	-0.34	-8.81	0.001**	-1.10	-0.70
Anxiety	-0.20	0.12	-0.07	-1.72	0.09	-0.43	0.03
Stress	0.22	0.10	0.07	2.11	0.04*	0.02	0.42
Gender	0.61	0.09	0.19	6.59	0.001**	0.43	0.79
Age	0.07	0.07	0.03	0.936	0.35	-0.08	0.22
Religion	0.05	0.07	0.02	0.73	0.47	-0.09	0.19
Weekly Exercise	0.46	0.09	0.15	5.37	0.001**	0.29	0.63

**p ≤ .01; *p ≤ .05

Table 5 Activity limitations and psychological distress as predictors of friend support

	Unst. Beta	S.E.	Stand. Beta	t	P	Confidence Interval	
						Lower	Upper
Step 1							
Cognitive Domain	−0.24	0.11	−0.13	−2.33	0.02*	−0.45	−0.04
Getting Around	−0.17	0.06	−0.10	−2.68	0.01**	−0.29	−0.05
Self-Care	0.10	0.08	0.07	1.19	0.24	−0.06	0.25
Getting Along with People	0.25	0.06	0.13	3.87	0.001**	0.12	0.38
Life Activities	−0.26	0.09	−0.17	−2.95	0.003**	−0.43	−0.09
Participation in Society	−0.04	0.07	−0.02	−0.56	0.58	−0.18	0.10
Depression	−0.38	0.09	−0.16	−4.11	0.001**	−0.56	−0.20
Anxiety	0.05	0.11	0.02	0.49	0.63	−0.15	0.26
Stress	−0.43	0.09	−0.16	−4.55	0.001**	−0.61	−0.24
Step 2							
Cognitive Domain	−0.21	0.11	−0.11	−2.02	0.04*	−0.42	−0.01
Getting Around	−0.11	0.06	−0.07	−1.76	0.08	−0.24	0.01
Self-Care	0.10	0.08	0.07	1.18	0.24	−0.06	0.25
Getting Along with People	0.20	0.07	0.10	2.96	0.003**	0.07	0.33
Life Activities	−0.29	0.09	−0.20	−3.35	0.001**	−0.47	−0.12
Participation in Society	−0.07	0.07	−0.04	−0.97	0.33	−0.22	0.07
Depression	−0.47	0.09	−0.19	−4.99	0.001**	−0.65	−0.28
Anxiety	0.10	0.11	0.04	0.92	0.36	−0.11	0.31
Stress	−0.44	0.09	−0.17	−4.70	0.001**	−0.63	−0.26
Gender	−0.12	0.09	−0.04	−1.40	0.16	−0.29	0.05
Age	0.25	0.07	0.10	3.62	0.001**	0.11	0.38
Religion	0.09	0.07	0.04	1.30	0.20	−0.04	0.21
Weekly Exercise	0.09	0.08	0.03	1.11	0.27	−0.07	0.24

**p ≤ .01; *p ≤ .05

ratings were consistent on each of the subscales of social support: family, friends and significant others. This finding supports earlier research reporting the prevalence of social support for young adults [20]. On the basis of the framework [82, 83] that guided this study, it could be argued that the study participants possessed a sense of acceptance and support from members of society. This study finding provide support for the social support theory which guided the study. The trend reported in this study could be linked to the context within which the study was conducted. As indicated earlier, Ghana and many sub-Saharan African countries have a strong communal system where people depend on their immediate surroundings for assistance from other members of society. This situation transcends society, as young adults may develop social networks in environments where they find themselves. Young adults grow up with the innate skills required to accept support from their social networks. This could be an important platform that could be used by institutions such as universities to alleviate the burden encountered by young adults in society.

With respect to research question one, there was a relationship between activity limitations and psychological distress. This was evident in the computations of correlations and mediation analyses. The mediation analysis revealed that for every unit increase in activity limitation, psychological distress increased by 28 units. This finding is consistent with those of previous studies reporting a relationship between activity limitations and psychological distress [52, 137]. The prevalence of psychological distress and activity limitations among young people has been widely reported [159–161]. Although it is beyond the scope of this study to assume causation, one could contend that the presence of activity limitations could exacerbate psychological distress. There are many stressors in societies, such as poverty, unemployment and peer pressure, which require urgent attention from policymakers, who are in the process of developing policies and programs to advance the development of young adults. Similarly, poor health systems, unfriendly environments and limited attention given to self-care are some of the onsets of activity limitations. However, addressing activity limitations is inevitable in policies or programs intended to alleviate psychological distress among young adults.

With respect to research question two, activity limitations and psychological distress combined to predict social support. However, there was a lack of uniformity regarding the effects of the activity limitation and psychological distress domains on the tenets of social support. For example, in relation to significant others, the variables that contributed the most to their variance were the cognitive domain and depression. It could be surmised that significant others could be instrumental

in alleviating depression; for every unit of decrease in depression, support from significant others could increase by 43% to 44%. Similarly, observations were made on the support of family and friends. It could be inferred that not all domains of social support could address psychological distress. Social support theory has conflated the role of social support in alleviating burden or challenges faced by individuals. The current study has shown that some domains could be much more effect compared to others. Indeed, this is significant because in a communal society, young people are surrounded by friends and loved ones who may come to their aid when they are depressed. However, support from support networks could be attained when the myth surrounding psychological distress, such as depression, is dispelled in society [20, 162]. Psychological distress is erroneously interpreted as emanating from evil forces that make disclosure difficult [71]. Once this is done, support networks could be important avenues for young people to rely on to cope with depression.

An interesting observation was that significant others, friends and family, may not be able to support people who have issues related to cognitive activity. The results of the correlation analysis revealed that for every increase in cognitive activity limitation, support from significant others may be reduced. Similarly, in the regressions, it was observed that as cognitive activity limitations increase, support from significant others, friends and family may attenuate. This finding is at odds with the proposition that social support offered to individuals such as young odds, could ameliorate their burden or challenges [163–165]. It could be contended that aspects of social support and cognitive activity limitation could be asymmetrical. The findings reported here could be linked to inadequate support systems for persons who are living with cognitive limitations. In Ghanaian society, people living with cognitive limitations are erroneously viewed as incapable and thus are expected to depend on other people in society [166–169]. This contributes to their exclusion from society and discrimination against society [170]. Policymakers must educate society about the needs of people with cognitive limitations and the types of support they require from members of society.

Gender was found to impact two tenets of social support, significant others and family support. Males who took part in this study appeared to indicate more support from significant others and family than females did. According to previous studies, males are more likely to face social problems such as activity limitations and psychological distress than females are [66, 171, 172]. However, the findings alluded to females not seeking support from others. Indeed, the study findings could be explained by the cultural context. Although personality differences could play a role, in Ghana and many

nonwestern societies, females are largely raised to be reserved and inwards. In the event that they move outside their comfort zone, it becomes difficult for them to share personal struggles with others. In particular, in higher education, individuals leave their homes to live in new communities. This would place additional strain on females who are leaving in an environment anew to them. The findings of this study lend support for targeted training, especially for females, who could be at risk of non-disclosure and enduring personal struggles.

Another interesting finding was the role of participation in exercise in social support. The results showed that, as one participant in exercise, the greater the degree to which they would seek support from significant others and family. Previous studies have reported the importance of physical activity in developing healthy living and improved wellbeing among young adults [170, 171]. In this study, the findings have shown the potential for engaging in regular exercise to increase one's ability to seek support from family and others. In many instances, people engage in physical activities to cope with stressful situations [173]. Perhaps, it is essential that one's individuals are able to distract themselves with physical exercise; they develop the necessary confidence to engage with others with respect to their struggles and challenges. In Ghana, engaging in physical activity is not an accepted norm in society or the community. There is an urgent need for policymakers to promote regular exercise as part of efforts towards helping individuals cope with stressful conditions. This would enable them to develop the necessary confidence to engage with or seek support from others in society.

With respect to research question three, the findings of this study revealed that social support had an indirect effect on the relationship between activity limitations and psychological distress. While activity limitations could have a direct effect on psychological distress, the presence of social support could ameliorate or lessen such burdens. This study findings agrees with social support theory which has made cogent argument on the role of social support in mitigation challenges faced by individuals in society [82, 83]. This finding is possible because, in many instances, social support is intended to help individuals cope with difficult situations [173]. Indeed, activity limitations impair one's judgment, which may negatively affect their psychological well-being. However, it is apparent that social support could help mitigate the burden of activity limitations on psychological distress. When a young adult is living with activity limitations and accompanying psychological distress, social support becomes an important lynchpin for such a person. It is undeniable that social support is already engrained in local culture; thus, it is vital for policy makers to utilize it as an important lever to address some of the

psychological challenges faced by young adults in contemporary Ghanaian society.

Study limitations

The current study is not without limitations. First, the study relied on self-reports of participants; thus, the findings may not reflect reality. However, the study participants were carefully recruited from communities where young persons have converged. Consequently, the findings could provide a snapshot of the centrality of social support in mitigating the burden of activity limitations and psychological distress. Future studies may use qualitative methods to gain in-depth insight into the experiences of study participants. Second, the study participants were recruited from one region in Ghana. However, the region has all tertiary institutions located in other parts of the country. Moreover, there is free movement of people across Ghana, which makes it possible for heterogeneous young adults to crisscross the country to access higher education. In view of this, the findings may reflect individuals who were outside the scope of the current study. Moreover, the study participants were recruited from mainly urban areas, and as such, the findings may not reflect the perspectives of individuals living in rural areas. Future studies could extend the current study to rural communities. Moreover, the current study used a cross-sectional design, which makes it difficult to ascertain whether the role of social support in activity limitations and psychological distress changes over time. Future studies may use a longitudinal design to ascertain whether time influences the relationships among social support, activity limitations and psychological distress.

Conclusion and implications for practice

The current study used social support theory [82, 83] to gain insight into the role of social support in the relationship between activity limitations and psychological distress. The study reported here was conducted against the backdrop of social support being a culturally acceptable practice in Ghanaian society. In contemporary efforts to promote appropriate support strategies to alleviate the burden on young adults, the role of social support in reducing activity limitations and psychological distress has been explored. The study findings revealed a relationship between activity limitations and psychological distress. Additionally, activity limitations and psychological distress combined to predict social support. However, the relationship or impact of activity limitations and psychology on social support is not uniform. Specifically, different variables had a direct effect on the tenets of social support. Additionally, gender and engagement in regular exercise had direct effects on some of the domains of social support. Furthermore, social support was found to

directly and indirectly mediate the relationship between activity limitations and psychological distress.

In 2022, the Ghana government developed a comprehensive youth policy aimed at creating a suitable environment for the development of young adults [4]. The current study could be considered in future efforts to promote the wellbeing and development of young adults in Ghana. First, policymakers in Ghana could gather information about social support systems that could be utilized by youth. Training, media campaigns and workshops could focus on ways young adults could utilize low-cost support systems within the neighborhood. Moreover, targeted training could be developed for individuals on the basis of their gender. For example, regular seminars or workshops could be developed for males and females to deliberate on their challenges and support systems, which they could explore within their communities. Additionally, female and male support groups could be encouraged to meet regularly to discuss issues of common interest. This would help break barriers and help build support networks for young adults. Moreover, healthy lifestyles such as regular exercise could be promoted to enable young adults to develop self-efficacy and build support networks.

The current study is original, as it adopts a strength-based approach towards addressing social problems faced by young adults in contemporary non-Western society. The study validated published scales before they were utilized in this study. It has extended the current literature by drawing attention to the importance of social support systems in efforts to address social menace in nonwestern African society.

Abbreviations

DASS-21	Depression, Anxiety and Stress scale
WHODAS 2.0	World Disability Assessment Schedule version 2.0
ADLs	Activities of Daily Living
IADLs	Instrumental Activities of Daily Living
HRQOL	Health-related quality of life
SDGs	Sustainable Development Goals
UN	United Nations

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Authors' contributions

D.M. conceptualized the idea and concept, as well as the design of the study. D.M. was responsible for data collection. M.P.O. conducted the analysis and interpretation. The results were written by M.P.O. and D.M. Literature review was carried out by E.O.K. and M.P.O. The method section was written by D.M. and M.P.O. The discussion was written by M.P.O., D.M. and E.M.G. E.M.G. worked on the references. All the authors reviewed the manuscript.

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Data availability

The datasets used during the current study are available from the corresponding author upon reasonable request.

Declarations

Ethics approval and consent to participate

The College of Education Studies Ethical Review Board at the University of Cape Coast, Ghana, provided ethical approval for the present study (reference: CES/ERB/UCC/EDU/08-104). The study was conducted in accordance with the Declaration of Helsinki. Written informed consent was obtained from all the participants of the study.

Consent for publication

Not applicable.

Competing interests

The authors declare no competing interests.

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