The Role of Social Support in Mental Health Outcomes for Black Adults in Ireland

Weam Alias

National College of Ireland

NC010: Psychology

Dr. Fearghal O'Brien

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National College of Ireland

Project Submission Sheet

Student Name:	Weam Alias
Student ID:	x19364833
Program me:	Psychology
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Lecturer :	Barry Coughlan
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Student Number:19364833	
Degree for which thesis is submitted:Psychology	
Title of Thesis: The Role of Social Support in Mental Hea	lth
Outcomes for Black Adults in	
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Abstract

This study investigates the connection between Black adults' mental health outcomes, specifically, stress, anxiety, and depression and their perceptions of social support in Ireland. 89 participants in a cross-sectional, quantitative survey design filled out standardised questionnaires measuring psychological distress, family functioning, socioeconomic status (SES), perceived social support, and attitudes towards getting psychological help. Higher perceived social support was substantially linked to lower levels of anxiety and depression, according to hierarchical regressions. None of the three suggested moderators SES, family functioning, or help-seeking attitudes significantly influenced the association between support and distress, but socioeconomic status and family functioning also independently predicted mental health outcomes. These results imply that socioeconomic factors and perceived social support both have additive effects on mental health, but not an interactive one. The results highlight the importance of addressing both individual and structural contributors to wellbeing in Black communities and highlight the need for culturally relevant mental health interventions within the Irish context.

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Improved mental health outcomes have been repeatedly associated with perceived social support, which is defined as an individual's personal evaluation of the amount of support they believe is available from family, friends, or significant others (Zimet et al., 1988). According to Cohen and Wills (1985), social support is widely acknowledged as a protective factor in mental health and influences outcomes such as depression, anxiety, and stress. According to the buffering hypothesis, social support reduces the negative effects of stress by encouraging emotional resilience and providing a significant amount of assistance during challenging times (Cohen & Wills, 1985). The general advantages of social support have been studied in great detail, however little is known about perceived social support and it's nuanced effect on specific populations, such as Black adults living in Ireland. This area remains underexplored. This demographic often faces unique challenges, such as systemic discrimination, migration-related stress, and cultural stigma surrounding mental health. These factors can shape how support is perceived, accessed, and experienced. While focusing on the interaction between perceived social support and the moderating roles of socioeconomic status (SES), family functioning, and attitudes toward seeking professional psychological help, this literature review integrates existing research on social support and mental health outcomes. It also examines gaps in the literature to justify the rationale and design of the current study.

Social Support and Mental Health Outcomes

Social support plays an important role in shaping mental health outcomes. It includes emotional, practical, and informational help that people get from friends, family, and their wider social groups (Thoits, 2011). Many studies, including meta-analyses, have linked strong social support to lower levels of stress, anxiety, and depression. For example, Holt-Lunstad, Smith, and

Layton (2010) reviewed 148 studies and found strong evidence that social connections have a protective effect on mental health. During the COVID-19 pandemic, studies by Gabarrell Pascuet et al. (2023) and Li et al. (2023) also found that people who reported more social support had fewer symptoms of anxiety, depression, and PTSD. The most helpful forms of support included chances for positive social interaction, emotional support, as well as access to helpful information. This supports the buffering hypothesis. It states that social support protects individuals from the impacts of stress, especially during challenging times (Cohen & Wills, 1985).

Taylor et al. (2013) showed that Black Americans commonly rely on extended family and religious groups as important sources of support. Chatters et al. (2015) also demonstrated that for older African Americans, support from family and church is significantly associated with reduced depressive symptoms. This highlights the protective role of these culturally relevant supports. Black adults may face systemic challenges such as mental health stigma and little access to formal services. Socioeconomic challenges also changes the availability and effectiveness of social support. Despite evidence of the importance of social support, most of the research mostly looks at big groups of people, with marginalized groups like Black adults often overlooked (Taylor et al., 2013; Chatters et al., 2015). This highlights a need to understand the types of emotional, practical and also spiritual support that is common in Black communities, these may differ from typical Western ideas of social support.

Although some studies have explored the importance of social support earlier in life, such as during adolescence (Bae, 2020), this study focuses on how current levels of social support relate to mental health in adulthood. Since Black adults in Ireland are often under-represented, in European research there is still little known about how social support affects their mental health.

The current study seeks to address this gap by examining the relationship between current social support and levels of depression, anxiety, and stress in this group.

Socioeconomic Status as a Moderator

Socioeconomic status (SES) refers to where individuals stand within society. People often measure it by a combination of their income, education, and occupational status (APA, 2023). SES plays a significant role in influencing mental health outcomes. It affects an individual's access to resources, life stability and opportunities (Lund et al., 2018). Research suggests that the impact of social support on mental health could vary depending on a person's SES. Individuals under higher levels of stress (often as a result of socioeconomic disadvantage) may gain greater psychological relief from strong social connections (Thoits, 2011).

However, the overlap of SES and race complicates this relationship. Black individuals in Ireland disproportionately experience economic problems, not just due to SES, but also because of barriers in areas such as education, housing, and employment (Grotti, Russell, Fahey, & Maître, 2018). These systemic issues increase stress and also limit the opportunity to build strong support networks. Importantly, social support reducing these difficulties may be correlated with its consistency, stability and also its availability. Studies focusing on low-SES Black populations in other countries, such as the United States, have highlighted the crucial role of informal community-based support (Lincoln et al., 2003). Newer studies also point out the ways that socioeconomic disadvantage and systemic racism work together to affect mental health and access to protective social groups, (Williams, Lawrence, & Davis, 2019). Yet, these issues have not been fully explored in the Irish context, which is a significant gap this study seeks to address.

Family Functioning as a Moderator

Family functioning is defined as the quality of interactions, emotional support, communication, and overall cohesion within the family (Epstein, Baldwin, & Bishop, 1983). Positive family functioning is associated with better psychological outcomes, while dysfunctional patterns such as poor communication or conflict can worsen mental health difficulties (Shek, 2002). This study uses the McMaster General Functioning Scale to assess overall family functioning, which provides a validated and reliable measure of family health and dysfunction (Byles et al., 1988). Research suggests that family dynamics/ functioning can influence how social support is perceived and received. For instance, people from well-functioning families may be more likely to seek help during times of distress and positively internalise support (Zhang et al., 2024). However, those from dysfunctional families may potentially worsen their mental health due to the distrust or underuse available support. In the context of Black adults in Ireland, understanding how family functioning influences the relationship between social support and mental health could potentially offer a greater understanding of culturally relevant support systems and interventions.

Attitudes Toward Seeking Professional Psychological Help

When it comes to seeking professional psychological help, attitudes play an important role in whether individuals access mental health services (Vogel et al., 2007; Clement et al., 2015; Mackenzie et al., 2006). This is especially important in communities where there may be a great deal of stigma or mistrust about mental health care. For Black adults in Ireland, this outlook is often shaped by cultural values passed down through African and Caribbean traditions. These values tend to emphasise informal support, such as family or religious leaders, over turning to professional services (Mantovani et al., 2017).

How individuals approach mental health support is influenced by their cultural values. While Western models typically place more emphasis on personal accountability and professional intervention, people in many African and Caribbean communities frequently rely on unofficial sources of support, such as family members or religious leaders. These contrasting views may affect an individual's willingness or comfort level with seeking official psychological help, potentially leading to unique barriers in accessing care.

It is understood that individuals with more positive attitudes about mental health are more likely to seek help and that seeking help tends to lead to better mental health outcomes.

Rickwood et al. (2007) found that individuals with more inclusive attitudes toward mental health showed improved outcomes, especially when they had open, communicative support systems around them. A similar study with African immigrants in Canada found that cultural beliefs about stigma and privacy significantly influenced their willingness to use mental health services (Boukpessi, Kpanake, & Gagnier, 2021). Stigma and skepticism about formal psychological services can deter individuals from reaching out, even when that help may be needed (Corrigan et al., 2014). However, individuals who hold more positive attitudes toward seeking professional help are more likely to use these services and experience greater results in their mental health (Hammer et al., 2018).

To assess these attitudes and their possible moderating effect on the relationship between perceived social support and mental health outcomes, the current study will use the Attitudes Toward Seeking Professional Psychological Help - Short Form (ATSPPH-SF; Fischer & Farina, 1995). Understanding how these attitudes work within the context of Black adults in Ireland could possibly contribute to informing culturally sensitive interventions.

Research Gaps and Implications

The majority of the research that is currently available overlooks the intersectionality of race, socioeconomic status (SES) and cultural context in how support systems are created and maintained. Despite the relationship between social support and mental health being well-established, important gaps still exist. Less is known about the impact of these overlapping factors on the mental health of specific groups, such as Irish Black adults. Additionally, the overreliance on western scales and measures restricts the applicability of these findings to more diverse populations.

Methodological Considerations

Many existing studies in this area are limited by small sample sizes, broad racial categories, and a lack of cultural sensitivity (Sue et al., 2012). This study will try to address some of these issues by focusing specifically on Black adults in Ireland and using relevant, validated measures of social support and mental health. While longitudinal designs have been recommended to understand how support and mental health change over time, this study uses a cross-sectional approach, which is appropriate for its scope and aims. It highlights important associations that can guide future research. Limitations such as relying on self-report measures are acknowledged, however efforts were made to pick a sample that was demographically relevant and to use well-recognized measures.

The Irish Context

Based on research conducted by the Central Statistics Office (2023), individuals of African descent have been identified as one of the fastest-growing communities in the country. The increasing diversity of Ireland's population is a particularly valuable time to gain a deeper understanding of mental health among Black adults. It is important to note that their mental health experiences can be shaped by multiple systemic barriers including limited access

to mental health care, racial discrimination, and socioeconomic inequality (McGinnity et al., 2018).

Cultural and generational factors can also influence how individuals perceive and seek help. For example, Black adults in Ireland may have to balance their two cultural identities as well as embrace traditional family values and Western cultural norms. Challenges like these can often cause strain within families and burden their support systems. While my study did not measure these specific factors, they help to provide context for the environments where individuals experience and rely on social support. Although there has been Irish research conducted on migrant mental health, very little research has been conducted on the Black adult community specifically. For instance, a Mental Health Reform (2014), found that ethnic minorities had lower rates of use of mental health services in Ireland, but did not examine how perceived social support factors into these patterns. It is crucial to continue to address these gaps to create effective interventions that acknowledge the social and structural factors that impact mental health.

Current Study Rationale

By investigating the relationship between perceived social support and mental health specifically, stress, anxiety, and depression in Black adults residing in Ireland, this study fills an important research gap. Although there is a lack of research that looks at this relationship in the Irish context, international research indicates that social support can help protect an individual's mental health (Hefner & Eisenberg, 2009; Lincoln et al., 2010). Given the systemic injustices, restricted access to services, and cultural barriers that may affect how support is experienced, this lack of support is concerning (McGinnity et al., 2018). The study also investigates how this relationship is moderated by family functioning, socioeconomic status, and attitudes towards

getting professional psychological help. This may offer a more nuanced view of the factors influencing mental health in this population. By focusing on Black adults who may face unique cultural and social challenges, the study aims to contribute to the development of culturally informed mental health resources that better reflect the realities of diverse communities in Ireland.

Research Aims and Questions

This study aims to investigate the link between perceived social support and current mental health outcomes, focusing on depression, anxiety along with stress in Black adults who live in Ireland. Past research has demonstrated that social support lowers psychological distress. However, a small number of studies have looked at this connection in Ireland, or among Black individuals specifically. This study seeks to address that gap by assessing if perceived support, especially during times of hardship is related to mental health states. Additionally, the study explores whether socioeconomic status, family functioning, and attitudes toward seeking psychological help influence this relationship. These variables were selected based on their potential influence on both access to support and engagement with mental health services.

Research Questions and Hypotheses

RQ1: What is the association between perceived social support and mental health symptoms (depression, anxiety, stress) in Black adults in Ireland?

H1: There will be a significant relationship between perceived social support and mental health outcomes.

RQ2: Do socioeconomic status, family functioning, and attitudes toward seeking psychological help moderate this association?

H2: Socioeconomic status, family functioning, and attitudes toward seeking psychological help will influence the strength or direction of the relationship between social support and mental health outcomes.

Methodology

Participants

The sample originally consisted of 91 Black adults aged 18 years and older living in Ireland, however two participants who did not identify as Black were excluded from the final analysis, resulting in a final sample of 89 Black adults. The minimum age in the sample was 18 years and the maximum was 55 years. Age was entered through an open-text box, but the form was restricted so that individuals under 18 could not proceed. Purposive and convenience sampling methods were used to recruit participants, focusing on online platforms and community groups popular among Black adults, including Instagram, WhatsApp, Snapchat, and Linkedln. Recruitment posts allowed voluntary participation by including study details, eligibility criteria, and survey links. According to the inclusion criteria, participants had to be residents of Ireland, self-identify as Black and be at least 18 or over. Participants were asked "Do you identify as Black, African or Caribbean?" to confirm eligibility before starting. Although there were no specific screening questions for cognitive impairments or language proficiency in the survey, individuals with severe cognitive or language barriers were effectively excluded due to the requirement that they independently complete an English-language questionnaire. To allow a wider representation of the population, participants with self-reported current mental health conditions were eligible to take part.

According to the final sample, 29.2% identified as male and 70.8% identified as female. The final sample's mean age was 25.41 years (M = 25.41) (SD = 7.55). 88 participants were included in the analysis involving SES as one participant did not respond to the socioeconomic status question. Participants were not divided into experimental groups, as the study used a correlational design. An a priori power analysis using G*Power (Faul et al., 2009) for a multiple

regression with four predictors. The analysis indicated that a minimum sample size of 55 participants was required to detect a medium effect size ($f^2 = 0.15$) with 80% power at an alpha level of .05. when including three predictors (the main effects of perceived social support, the moderator, and their interaction). Therefore, the final sample size of 89 participants exceeded this requirement, indicating that the sample size was sufficient to detect the hypothesized effects. To maintain statistical validity, cases with missing data on key variables (such as the one participant missing SES) were excluded from relevant analyses.

Measures

Multidimensional Scale of Perceived Social Support (MSPSS)

The MSPSS (Zimet et al., 1988) was used to assess perceived social support. It included statements such as "There is a special person who is around when I am in need" and "I get the emotional help & support I need from my family." A 7-point Likert scale ranging from 1 (Very strongly disagree) to 7 (Very strongly agree) was used to record responses. Subscale scores were calculated by averaging the four items corresponding to each source of support, and a total support score was obtained by averaging all 12 items. Higher scores indicate greater perceived social support. MSPSS has demonstrated strong reliability and validity in previous research. In the current study, internal consistency was excellent for the Family ($\alpha = .92$), Friends ($\alpha = .92$), and Significant Other ($\alpha = .90$) subscales.

Depression Anxiety Stress Scales – 21 item version (DASS-21)

The DASS-21 (Lovibond & Lovibond, 1995) assesses symptoms of depression, anxiety, and stress using 21 self-report items divided equally among the three subscales. Sample items include "I felt that life was meaningless" (Depression), "I was aware of dryness in my mouth" (Anxiety), and "I found it difficult to relax" (Stress). A 4-point Likert scale is used to score

responses with 0 representing "Did not apply to me at all" and 3 representing "Applied to me very much or most of the time". Greater symptom severity is indicated by higher scores. Subscale scores were calculated by adding the items for each domain and multiplying by two to match the full 42-item version, as recommended by the authors. The internal consistency for the DASS-21 in the current study was strong: Depression ($\alpha = .89$), Anxiety ($\alpha = .83$), and Stress ($\alpha = .82$).

Attitudes Toward Seeking Professional Psychological Help – Short Form (ATSPPH-SF)

The ATSPPH-SF (Fischer & Farina, 1995) measures participants' attitudes toward seeking psychological help. Items include statements such as "If I thought I was having a mental breakdown, my first thought would be to get professional attention" and "Talking about problems with a psychologist seems to me as a poor way to get rid of emotional problems." Responses are given on a 4-point Likert scale from 0 (Disagree) to 3 (Agree), with higher scores indicating more positive attitudes toward seeking help. In the current study, internal consistency was moderate ($\alpha = .63$). which is below the commonly recognised threshold of .70. This could be a result of the scale's short length (10 items) or possible restrictions on how well the scale applies to the current sample.

McMaster Family Functioning Questionnaire – General Functioning Subscale (FAD-GF)

Family functioning was assessed using the General Functioning subscale of the Family Assessment Device (FAD; Epstein, Baldwin, & Bishop, 1983). This included aspects such as communication, emotional support, and problem-solving. Sample items include "In times of crisis, we can turn to each other for support" and "Making decisions is a problem for our family." Items are rated on a Likert scale from 1 (Strongly agree) to 4 (Strongly disagree), where

higher scores reflect greater family dysfunction. Scores were averaged to obtain a total score. In the current study, the internal consistency for the FAD was good ($\alpha = .86$).

MacArthur Scale of Subjective Social Status

This scale measures participants' perceived socioeconomic status using a visual "ladder" representing society, with 10 steps ranging from lowest (1) to highest (10) social standing. On this ladder, participants indicate where they believe they stand compared to others in Ireland. Responses are scored from 1 to 10, with higher scores reflecting higher perceived SES. In a variety of populations, the MacArthur Scale has demonstrated good test-retest reliability (r = .62-.78) and strong construct validity (Adler et al., 2000). To ensure cultural relevance, the scale was adapted for this study to reference Ireland rather than the United States.

Design

This study used a quantitative, cross-sectional, correlational design to examine associations between perceived social support and mental health outcomes (depression, anxiety, and stress) in Black adults living in Ireland. Without suggesting causation, the design allows for the assessment of relationships and moderating effects. Predictor variables included perceived social support (MSPSS) and moderator variables comprising socioeconomic status (MacArthur Scale), family functioning (FAD-GF), and attitudes toward seeking psychological help (ATSPPH-SF). Outcome variables were symptoms of depression, anxiety, and stress (DASS-21). No experimental manipulation or grouping occurred. A cross-sectional correlational design was appropriate as the aim was identifying patterns and associations between psychological and social variables, without manipulating variables or establishing causality.

Procedure

Data was collected through an anonymous online survey, which was shared through a secure platform (Google Forms). Recruitment was conducted through social media posts and community group outreach, targeting Black adults living in Ireland. The survey link directed participants to an information sheet outlining the study's aims, procedures, potential risks, and confidentiality measures. Participants confirmed eligibility through an open text and also a checkbox verifying they were 18 years or older and self-identified as Black African or Black Caribbean. Participants provided informed consent electronically through a mandatory checkbox before accessing the questionnaire. The survey began with demographic questions which included the modified MacArthur Scale, followed by the MSPSS, the DASS-21, ATSPPH-SF and FAD-GF. The entire survey was designed to take approximately 10-15 minutes to complete.

Participants were informed that no compensation or incentives were offered for participation. Participants were informed they could pause or exit the survey at any point before submission. Contact details for the researcher, mental health support resources and contact details such as Samaritans and Jigsaw were provided in both the information and debriefing sheets to help those who may be in distress. No identifiable information was collected to ensure data confidentiality. Responses were anonymized and stored securely on password-protected and encrypted drives which were accessible only to the researcher. Before submitting their responses, participants were reminded of their right to withdraw; however, once the responses were submitted, the data was anonymised and could not be taken back.

Ethical Considerations

The study complied with ethical guidelines including informed consent, voluntary participation, confidentiality, and data protection under GDPR. Clear information regarding the study, possible risks, and available support services was given to participants. The survey's

sensitive nature, particularly regarding mental health questions, was clearly communicated to minimize distress. The research received ethical approval from the National College of Ireland's ethics committee prior to data collection.

Data Analysis

Prior to analysis, data was cleaned in Google Sheets to check for missing values, outliers, and consistency in responses. Cases with missing data or invalid responses were not included in the inferential analyses and were handled using listwise deletion to maintain consistency. Descriptive statistics (means, standard deviations, and frequencies) were used to summarize participant demographics and scale scores. Multiple regression analyses examined whether socioeconomic status, family functioning, and attitudes toward seeking psychological help moderated the relationships between perceived social support and mental health outcomes. To test the effects of moderation, interaction terms between social support and each moderator were included in separate models; only one participant had missing data on a key variable (socioeconomic status). All analyses were conducted using SPSS version 30 with significance set at p < .05. Continuous moderators (SES, family functioning, and attitudes) were mean-centered before creating interaction terms with perceived social support (MSPSS). These interaction terms were entered in hierarchical regression models to test for moderation.

Nine separate hierarchical regressions were performed to examine if any of the three moderators: Family Functioning (FAD), Attitudes Toward Seeking Psychological Help (ATSPPH), and Socioeconomic Status (SES), moderated the relationship between perceived social support (MSPSS) and each mental health outcome: depression, anxiety, and stress. For each regression, centered MSPSS scores and centered moderator variables were entered in Step 1 to test main effects, and the interaction term (MSPSS × Moderator) was entered in Step 2.

Assumptions of regression including normality, linearity, homoscedasticity, and multicollinearity were assessed. Residuals were assessed through histograms and normal P–P plots, and multicollinearity was evaluated using Variance Inflation Factor (VIF) values. All VIFs fell below the threshold (all < 1.2), indicating that multicollinearity was not an issue. All analyses were conducted using SPSS Version 30.

Results

Descriptive Statistics

The final sample consisted of 89 participants, with 70.8% women (n = 63) and 29.2% men (n = 26). The mean age was 25.47 years (M = 25.47, SD = 7.62). Socioeconomic status, measured by the MacArthur Ladder, ranged from 2 to 10, with a mean of 6.11 (M = 6.11, SD = 1.53). Table 1 displays descriptive statistics for key continuous variables. The mean perceived social support (MSPSS_Total) was 5.28 (M = 5.28, SD = 1.18), while mean scores for depression, anxiety, and stress (DASS subscales) were 13.87 (M = 13.87, SD = 10.52), 16.22 (M = 16.22, SD = 9.33), and 12.70 (M = 12.70, SD = 9.89), respectively. The mean for attitudes toward seeking professional psychological help (ATSPPH) was 17.18 (M = 17.18, SD = 5.37), and lastly family functioning (FAD) has a mean of 2.33 (M = 2.33, SD = 0.56).

Table 1

Descriptive Statistics for key study variables

Variable	N	Minimum	Maximum	Mean	Std. Deviation
Age	89	18	55	25.47	7.62
SES (Macarthur)	88	2	10	6.11	1.53
MSPSS_Total	89	1.67	7.00	5.28	1.18
MSPSS_Significant	89	1.00	7.00	5.47	1.44
Other					
MSPSS_Family	89	1.00	7.00	4.94	1.57
MSPSS_Friends	89	1.00	7.00	5.44	1.34
DASS_Depression	89	0	36	13.87	10.52
DASS_Stress	89	0	36	16.22	9.33

DASS_Anxiety	89	0	36	12.70	9.89	
ATSPPH_Total	89	3	29	17.18	5.37	
FAD_Total	89	1.25	4.00	2.33	0.56	
Valid N (listwise)	88					

Note: $N = sample \ size. \ SES = Socioeconomic \ Status \ (MacArthur \ Ladder). \ MSPSS = Multidimensional \ Scale \ of$ Perceived Social Support. DASS = Depression Anxiety Stress Scales. ATSPPH = Attitudes Toward Seeking

Professional Psychological Help. FAD = Family Assessment Device. Valid N (listwise) indicates the number of cases without missing data across variables.

Reliability of Measures

Internal consistency was evaluated using Cronbach's alpha. The Multidimensional Scale of Perceived Social Support (MSPSS) demonstrated excellent reliability across all subscales: significant other (α = .90), family (α = .92), and friends (α = .92). The DASS-21 subscales also showed good to excellent internal consistency, with α = .89 for depression, α = .83 for anxiety, and α = .82 for stress. The Family Assessment Device (FAD) yielded strong reliability (α = .86), while the Attitudes Toward Seeking Professional Help (ATSPPH) scale demonstrated acceptable reliability (α = .63). Overall, all scales used in the study demonstrated acceptable to excellent internal consistency (see Table 2).

Table 2

Reliability Coefficients (Cronbach's α) for Study Measures

Measure	Cronbach's a
MSPSS_Family	.92
MSPSS_Friends	.92
MSPSS_Significant Other	.90

Note. Cronbach's alpha values indicate internal consistency reliability for each scale/subscale. MSPSS =

Multidimensional Scale of Perceived Social Support; DASS = Depression Anxiety Stress Scales; FAD = Family

Assessment Device; ATSPPH = Attitudes Toward Seeking Professional Psychological Help.

Regression Analyses

Moderation by Socioeconomic Status (SES)

Three hierarchical regressions were conducted to examine whether socioeconomic status (SES) moderates the relationship between perceived social support and each of the outcome variables: depression, anxiety, and stress. Depression: Step 1 was significant, F(2, 85) = 8.11, p < .001, $R^2 = .16$, adjusted $R^2 = .14$. Both social support ($\beta = .28$, p = .007) and SES ($\beta = .26$, p = .011) were significant negative predictors. The interaction term at Step 2 was not significant, $\Delta R^2 = .01$, E(1, 84) = 0.82, E(

Table 3

Outcome	Step	Predictor	В	SE	β	t	p
Depression	1	Social Support	-2.42	0.88	28	-2.77	.007
		SES	-1.75	0.68	26	-2.60	.011
	2	MSPSS x SES	-0.60	0.67	09	-0.91	.367
Anxiety	1	Social Support	-2.46	0.84	29	-2.91	.005
		SES	-1.51	0.65	23	-2.33	.022
	2	MSPSS x SES	-0.52	0.64	08	-0.80	.424
Stress	1	Social Support	-1.38	0.80	18	-1.72	.088
		SES	-1.60	0.62	27	-2.60	.011
	2	MSPSS x SES	-0.25	0.61	04	-0.41	.685

Note: B = unstandardized coefficient; SE = standard error; $\beta = standardized$ coefficient; t = t statistic; p = significance level. MSPSS and SES variables were mean-centered prior to creating interaction terms.

While both SES and perceived social support independently predicted lower symptoms across outcomes, SES did not moderate the relationship between support and any of the outcomes.

Moderation by Family Functioning

Hierarchical regressions were used to test whether family functioning moderates the relationship between perceived social support and mental health outcomes. Depression: Step 1 was significant, F(2, 86) = 9.64, p < .001, $R^2 = .18$, adjusted $R^2 = .16$. Family functioning significantly predicted depression ($\beta = .29$, p = .005), while social support was not significant (β

= -.25, p = .140). The interaction was non-significant, ΔR^2 = .00, F(1, 85) = 0.77, p = .382, β = -.09. Anxiety: Step 1 was significant, F(2, 86) = 7.13, p = .001, R^2 = .14, adjusted R^2 = .12. Social support was significant (β = -.28, p = .008), and family functioning was marginal (β = .20, p = .062). The interaction was non-significant, ΔR^2 = .00, F(1, 85) = 0.30, p = .587, β = -.06. Stress: Step 1 was significant, F(2, 86) = 4.50, p = .014, R^2 = .10, adjusted R^2 = .07. Family functioning was significant (β = .22, p = .046); social support was marginal (β = -.17, p = .104). The interaction was not significant, ΔR^2 = .00, F(1, 85) = 0.00, p = .950, β = -.01.

Table 4

Moderation by Family Functioning

Outcome	Step	Predictor	В	SE	β	t	p
Depression	1	Social Support	-2.25	0.90	25	-2.50	.140
		Family Functioning	5.47	0.68	.29	2.89	.005
	2	MSPSS x FAD	-1.46	1.66	09	-0.88	.382
Anxiety	1	Social Support	-2.34	0.87	28	-2.70	.008
		Family Functioning	3.46	1.82	.20	1.89	.062
	2	MSPSS x FAD	-0.88	1.61	06	-0.55	.587
Stress	1	Social Support	-1.38	0.84	17	-1.65	.104
		Family Functioning	3.59	1.77	.22	2.03	.046
	2	MSPSS x FAD	-0.10	1.56	01	-0.06	.950

Note: B = unstandardized coefficient; SE = standard error; $\beta = standardized$ coefficient; t = t statistic; p = significance level. MSPSS and SES variables were mean-centered prior to creating interaction terms.

Family functioning was a consistent independent predictor of distress, but it did not moderate the relationship between perceived social support and outcomes.

Moderation by Attitudes Toward Seeking Professional Psychological Help (ATSPPH)

Three regression models tested whether attitudes toward seeking help moderated the effect of social support on mental health. Depression: Step 1 was significant, F(2, 86) = 6.22, p = .003, $R^2 = .13$, adjusted $R^2 = .11$. Social support was significant ($\beta = -.29$, p = .007); ATSPPH was not ($\beta = -.15$, p = .141). The interaction was not significant, $\Delta R^2 = .00$, F(1, 85) = 0.17, p = .679, $\beta = -.043$. Anxiety: Step 1 was significant, F(2, 86) = 7.33, p = .001, $R^2 = .15$, adjusted $R^2 = .13$. Both social support ($\beta = -.28$, p = .008) and ATSPPH ($\beta = -.20$, p = .008) were significant. The interaction term was not significant, $\Delta R^2 = .00$, F(1, 85) = 0.34, p = .564, $\beta = -.06$. Stress: Step 1 was significant, F(2, 86) = 5.24, p = .007, $R^2 = .11$, adjusted $R^2 = .09$. ATSPPH was a significant predictor ($\beta = -.25$, p = .021); social support was non-significant ($\beta = -.17$, p = .106). The interaction was not significant, $\Delta R^2 = .00$, F(1, 85) = 0.07, p = .789, $\beta = .03$.

Table 5

Moderation by Attitude Toward Seeking Professional Psychological Help

Outcome	Step	Predictor	В	SE	β	t	p	
Depression	1	Social	-2.57	0.92	29	-2.78	.007	
		Support						
		ATSPPH	-0.30	0.20	15	-1.49	.141	

Step	Predictor	В	SE	β	t	p
2	MSPSS x	-0.07	0.16	04	-0.42	.679
	ATSPPH					
1	Social	-2.35	0.86	28	-2.74	.008
	Support					
	ATSPPH	-0.38	0.19	20	-1.99	.050
2	MSPSS x	-0.09	0.15	06	-0.58	.564
	ATSPPH					
1	Social	-1.35	0.83	17	-1.63	.106
	Support					
	ATSPPH	-0.43	0.18	25	-2.35	.021
2	MSPSS x	0.04	0.14	.03	0.27	.789
	ATSPPH					
	2 1	2 MSPSS x ATSPPH 1 Social Support ATSPPH 2 MSPSS x ATSPPH 1 Social Support ATSPPH 2 MSPSS x	2 MSPSS x -0.07 ATSPPH 1 Social -2.35 Support ATSPPH -0.38 2 MSPSS x -0.09 ATSPPH 1 Social -1.35 Support ATSPPH -0.43 2 MSPSS x 0.04	2 MSPSS x -0.07 0.16 ATSPPH 1 Social -2.35 0.86 Support ATSPPH -0.38 0.19 2 MSPSS x -0.09 0.15 ATSPPH 1 Social -1.35 0.83 Support ATSPPH -0.43 0.18 2 MSPSS x 0.04 0.14	2 MSPSS x -0.07 0.1604 ATSPPH 1 Social -2.35 0.8628 Support ATSPPH -0.38 0.1920 2 MSPSS x -0.09 0.1506 ATSPPH 1 Social -1.35 0.8317 Support ATSPPH -0.43 0.1825 2 MSPSS x 0.04 0.14 .03	2 MSPSS x -0.07 0.1604 -0.42 ATSPPH 1 Social -2.35 0.8628 -2.74 Support ATSPPH -0.38 0.1920 -1.99 2 MSPSS x -0.09 0.1506 -0.58 ATSPPH 1 Social -1.35 0.8317 -1.63 Support ATSPPH -0.43 0.1825 -2.35 2 MSPSS x 0.04 0.14 .03 0.27

Note: B = unstandardized coefficient; SE = standard error; $\beta = standardized$ coefficient; t = t statistic; p = significance level. MSPSS and SES variables were mean-centered prior to creating interaction terms.

ATSPPH was a significant independent predictor in some models but did not moderate the relationship between perceived social support and outcomes.

Multicollinearity

To assess multicollinearity, Variance Inflation Factor (VIF) values were examined for each regression model across the three predictors: centered MSPSS, the moderator variable (SES, FAD, or ATSPPH), and their interaction term. Residuals appeared normally distributed based on histogram and normal P-P plots. All VIF values ranged from 1.013 to 1.101 across the

nine models, well below the commonly accepted threshold of 5. These results indicate that multicollinearity was not a concern in any of the models.

Summary

Across all nine models, no significant moderation effects were found for SES, family functioning, or ATSPPH. However, these variables often contributed independently to the prediction of depression, anxiety, and stress, particularly perceived social support and SES. This suggests that while these factors do not alter the strength of the relationship between social support and mental health, they still have important additive effects.

Discussion

Summary of Key Findings

The current study aimed to test whether socioeconomic status (SES), family functioning, and attitudes towards seeking professional psychological help moderated the relationship between mental health outcomes (depression, anxiety, and stress) and perceived social support among Black adults. Multiple studies that indicated that social support is a significant protective factor (moderator) against mental health issues (Cohen & Wills, 1985) informed the study's aims. However, the impact of social support may be affected by contextual factors, including family functioning, socioeconomic status, and attitudes towards seeking professional psychological help.

The study tested two main hypotheses: There will be a significant relationship between perceived social support and mental health outcomes; Socioeconomic status, family functioning, and attitudes toward seeking psychological help will influence the strength or direction of the relationship between social support and mental health outcomes. The first hypothesis was partially supported by the results, which showed that perceived social support was a marginal predictor of stress, but a consistent and significant predictor of anxiety and depression. However, none of the hypothesised moderation effects were supported: SES, family functioning, and attitudes toward seeking help did not significantly moderate the relationship between perceived social support and any of the outcome variables. However, these factors, especially SES and family functioning, frequently showed up as important independent predictors of mental health. This could imply that psychological distress (depression, anxiety and stress) is caused by additive rather than interactive factors.

Interpretation of Findings

Social Support as a Predictor of Mental Health

As expected, and consistent also with previous research (e.g., Thoits, 2011; Zimet et al., 1988), perceived social support appeared to be significantly associated with lower levels of depression and anxiety. These findings reinforce the protective role of social support in reducing psychological distress. Individuals who felt that their friends, family, and significant others provided them with more emotional and practical support were more likely to report feeling less depressed and anxious. This finding seems to support the notion that perceived support has a general, beneficial impact on mental health as outlined in the stress-buffering hypothesis (Cohen & Wills, 1985).

Interestingly, the link between support and stress came close to significance but didn't quite meet the threshold, which was unexpected. One possible explanation is that the DASS-21 stress subscale captures more immediate, physical symptoms of distress (e.g., irritability, nervous arousal), which may be influenced less by perceived support and more by biological factors (Lovibond & Lovibond, 1995). Alternatively, social support in stress reduction may have been affected by other variables such as coping style or resilience, which was not tested here.

Lack of Moderation Effects

SES however did not moderate the relationship between perceived social support and any mental health outcomes. This finding was unexpected as previous research suggested that the benefits of support could be increased or decreased by socioeconomic status (Adler et al., 2000). One possibility is that, despite its validity, the MacArthur Ladder might not have fully captured factors such as financial instability, education level etc. On the other hand, no moderation could also suggest that social support benefits this population's psychological well-being in a way that is constant across SES levels.

Similarly, family functioning did not moderate the relationship between perceived support and mental health. Although family functioning was a significant independent predictor, especially for depression and stress, it didn't change the strength or direction of the social support to the relationship. This could possibly indicate that, even without the more individualised sense of support, the family environment has a direct impact on mental health. In other words, even if an individual believes that their social environment is supportive, dysfunctional family functioning could still cause stress that could fuel emotional distress (depression, anxiety and stress). Finally, attitudes toward seeking professional help were also not found to moderate the relationship between support and mental health, despite coming out as a significant independent predictor of anxiety and stress. This suggests that rather than strengthening or weakening the effects of informal social support, openness to professional support may operate as a separate route to psychological wellbeing. Previous studies have highlighted that individuals with positive help-seeking attitudes are more likely to access mental health services (Rickwood et al., 2005), which as a result could reduce symptom severity.

Critical Evaluation in Relation to Prior Research

The absence of significant moderating effects contrasts with earlier research that social support could be helpful for people dealing with family dysfunction or socioeconomic difficulties (e.g., Adler et al., 2000; Ge et al., 1996). Adler et al. (2000), for example, emphasised how socioeconomic status affects stress exposure and could also change the protective function of social support. According to Ge et al. (1996), adolescents that had poor family functioning were also more susceptible to psychological issues unless they had strong social connections to protect them. This study however, concentrated on black adults in Ireland. The lack of moderation effects may be explained by this lack of variation. Although family functioning did

not moderate the effects of perceived support, it still played an important role in predicting depression and stress. This aligns with previous literature on the importance of the family environment for emotional health. Research has consistently shown that positive family functioning such as open communication and collaborative problem-solving is associated with reduced psychological distress (Ackard et al., 2006). In this case, it seems that the overall family dynamic might have a direct impact on wellbeing, regardless of how much support an individual feels they have from others.

Similarly, attitudes toward seeking professional help significantly predicted anxiety and stress, consistent with earlier findings that link help-seeking openness to better mental health outcomes (Rickwood et al., 2005; Eisenberg et al., 2007). However, the absence of social support interaction, suggests that formal and informal support might function through different methods. This may also be a reflection of generational or cultural changes in the ways that Black adults seek support, such as relying on peers or online platforms instead of traditional mental health services.

Overall, these results contradict the buffering model (Cohen & Wills, 1985), which proposes that support is most beneficial under high stress or disadvantage, but they do support the main effects model which suggests that social support benefits psychological wellbeing generally (Lakey & Orehek, 2011). This gap highlights the need for more nuanced models that consider culturally relevant factors, such as how individuals manage their emotions or feel in control of their lives

Theoretical and Practical Implications

The findings from the current study are important from a theoretical and practical standpoint. Theoretically, regardless of contextual risk factors such as SES or family functioning,

they reinforce the idea that perceived social support has a direct, positive effect on mental health. This contradicts the notion that support is most beneficial during periods of high stress, but it does support the stress-buffering hypothesis in terms of its overall advantages (Cohen & Wills, 1985). In this situation, social support, regardless of outside influences may have an underlying role in encouraging emotional wellbeing. Practically, this implies that interventions aimed at enhancing social support could have broad mental health benefits, even without tailoring them specifically to socioeconomic or family backgrounds. For example, peer-support programs, mentoring programs, or culturally sensitive community groups could play a role in improving mental health outcomes among Black adults in Ireland. However, since both family functioning and attitudes toward seeking help were also found to be important on their own, the most effective approaches may have a more holistic view addressing both social relationships and personal coping strategies.

This study also supports the idea that mental health is influenced by many different layers, not just personal experiences, but also factors such as family relationships, culture, and social environment (Bronfenbrenner, 1979). While social support is important, it is not the only factor that affects mental health. The results demonstrated that family functioning and attitudes toward getting professional help also play a big role. These findings are especially important for public health and education, especially in supporting the mental health of Black adults in Ireland. Through experiencing major life transitions such as pursuing further education, starting a new job, or family responsibilities, strong social support can be an important protective factor.

The study also demonstrating that mental health is linked to attitudes toward seeking professional helps to emphasise the need to address stigma around mental health and improve accessibility to services. Culturally sensitive campaigns and efforts to raise awareness could help

make help seeking feel more acceptable and remove some of the barriers people face, especially in communities where mental health is often seen as a taboo topic (Gary, 2005).

Strengths, Limitations, and Future Directions

This study highlights an under-researched area, by focusing on the experiences of Black adults in Ireland, a group that is often overlooked in mainstream psychology research. The findings help us to understand how social support works alongside other social and psychological factors to impact mental health for this group. However, some limitations should be acknowledged. While significant associations were found, it is not possible to know the direction of these relationships as the study had a cross-sectional design. For example if lower perceived support leads to poorer mental health or if individuals experiencing higher distress are less likely to perceive support as available. Future studies should include longitudinal designs to explore the effects of support and mental health over time. Although ethical protocols were completely followed, including informed consent, anonymity, and providing mental health resources, there are still some limitations in the way that it was carried out. Although the sample was focused on a specific demographic, it was relatively small (N = 89) and potentially could have skewed toward those with internet access and interest in mental health. Due to this, it is difficult to say if the findings apply to everyone, therefore future research should include larger and more diverse groups.

While the Multidimensional Scale of Perceived Social Support (MSPSS) is widely used, it may miss some important types of support that are common in African and Caribbean communities, like shared coping, spirituality, or support from extended family. Similarly, widely validated mental health measures such as the DASS-21 were made in Western settings and might not fully reflect how people from different cultures show distress or resilience. Due to this, it is

important to create or adapt tools that fit different cultures better and use a mix of methods to fully understand support in diverse groups. Due to these limits, there is a need to create or adjust tools that are more culturally sensitive and to use different research methods that could better understand the ways that individuals support each other in diverse communities.

Future research should consider a systemic and intersectional perspective such as racial discrimination, cultural stigma and migration-related stress. Studies that use interviews or involve communities directly could help to better understand how people see and use support in different cultures and stages of life. Longitudinal designs, in particular, could highlight how changes in social connections and identity development impact mental health over time. Since ethnic minority groups often face ongoing mental health challenges, including barriers to accessing care, experiencing marginalisation, and underrepresentation in mental health research, this topic is important both academically and socially. More inclusive and culturally aware research is needed to improve mental health support and create policies and programs that truly fit the needs of diverse communities.

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Appendices

Appendix A

Participant Information Leaflet

PROJECT TITLE

The Role of Social Support in Mental Health Outcomes for Black Adults in Ireland

INVITATION

You are being asked to take part in a research study on the relationship between perceived social support and mental health outcomes (depression, anxiety, and stress) among Black adults living in Ireland. To take part in this study, you must be Black, aged 18 or over, and currently living in Ireland. This research is being conducted by Weam Alias, a final-year psychology student at the National College of Ireland, under the supervision of Dr. Fearghal O'Brien. This project has been approved by the Psychology Research Ethics Committee at the National College of Ireland.

WHAT WILL HAPPEN

In this study, you will be asked to complete an online survey. The survey includes Demographic questions (e.g., age, gender, and socioeconomic background).

- Questions about your perceived social support (e.g., "I get the emotional help and support I need from my family")
- Questions about your current mental health symptoms (e.g., "I felt that life was meaningless")
- Questions about your **attitudes toward seeking professional psychological help** (e.g., "I would want to get psychological help if I were worried or upset for a long period of time")
- Questions about **how your family generally functions** (e.g., "We are able to make decisions about how to solve problems")

All responses will remain anonymous and confidential.

TIME COMMITMENT

The survey will take approximately 15 minutes to complete.

PARTICIPANTS' RIGHTS

- Your participation is entirely voluntary.
- You may withdraw from the study at any time while completing the survey. However, once your responses are submitted, it will no longer be possible to withdraw your data, as responses are anonymized.
- You have the right to omit or skip any question you do not wish to answer without any penalty.

BENEFITS AND RISKS

Your input will contribute to a better understanding of how social support impacts mental health among Black young adults in Ireland. There are no significant risks associated with this study. However, some questions may involve sensitive topics related to mental health, which could potentially cause discomfort. If you feel distressed while completing the survey, you are free to pause or stop. Support resources, including descriptions and contact details for mental health services, are provided below and will also appear at the end of the survey.

COST, REIMBURSEMENT, AND COMPENSATION

Your participation in this study is entirely voluntary, and there is no compensation offered.

CONFIDENTIALITY/ANONYMITY

Your responses are completely anonymous, meaning no identifying information (e.g., name, email address) will be collected or linked to your survey answers. Data will be securely stored on password-protected devices and encrypted servers. The data will be used only for academic purposes, such as the completion of an undergraduate dissertation. Results may also be presented at academic conferences or published in research journals, but all findings will remain anonymous.

SUPPORT SERVICES

If you feel distressed or need support, please consider reaching out to one of the following services:

• Samaritans: 116 123 or 01 671 0071 (Free, confidential, and available

24/7)

• **Jigsaw**: 01 658 3070 (Mental health support for young people aged 12-25)

FOR FURTHER INFORMATION

If you have any further questions about this study, you may contact:

- **Researcher**: Weam Alias (x19364833@student.ncirl.ie)
- Supervisor: Dr. Fearghal O'Brien (email: [Fearghal.Obrien@ncirl.ie)

If you would like to receive a summary of the study's findings, please indicate this at the end of the survey.

Appendix B

Consent form:

In agreeing to participate in this research I understand the following:

- The method proposed for this research project has been approved in principle by the Departmental Ethics Committee, which means that the Committee does not have concerns about the procedure itself as detailed by the student. It is, however, the above-named student's responsibility to adhere to ethical guidelines in their dealings with participants and the collection and handling of data.
- If I have any concerns about participation, I understand that I may refuse to participate or withdraw at any stage by exiting my browser.
- I understand that once my participation has ended, that I cannot withdraw my data as it will be fully anonymised.
- I have been informed as to the general nature of the study and agree voluntarily to participate.
- All data from the study will be treated confidentially. The data from all participants will be compiled, analysed, and submitted in a report to the Psychology Department in the School of Business.
- I understand that my data will be retained and managed in accordance with the NCI data retention policy, and that my anonymised data may be archived on an online data repository and may be used for secondary data analysis. No participants data will be identifiable at any point.
- At the conclusion of my participation, any questions or concerns I have will be fully addressed.

	Please tick this box if you have read, and agree with all of the above information.
П	Please tick this box to indicate that you are providing informed consent to participate in this study

Appendix C

Debriefing sheet

Title of Study

The Role of Social Support in Mental Health Outcomes for Black Adults in Ireland

Researcher

Weam Alias

Contact Information

x19364833@student.ncirl.ie

Thank You

Thank you for participating in this study. We greatly appreciate your time and contribution to this important research.

Purpose of the Study

This study aims to explore how social support relates to mental health outcomes, such as depression, anxiety, and stress, among Black adults aged 18+ living in Ireland.

Confidentiality

All information you provided is strictly confidential and anonymous. Your responses are not linked to any identifying information, and data is stored securely in encrypted files. Only the researcher will have access to the data, which will be used solely for academic research purposes.

Use of Data

The results of this study will be used for the completion of my undergraduate dissertation and may be presented at academic conferences or published in research journals. Your identity will remain anonymous at all times.

Mental Health Resources

If this study has raised any issues or emotions for you, or if you feel you need support, please consider reaching out to one of the following resources:

- **Samaritans**: 116 123 or 01 671 0071 (Free and available 24/7)
- **Jigsaw**: 01 658 3070 (Supports for young people aged 12-25)

Contact Information

If you have any further questions about the study or its findings, feel free to contact Weam Alias at x19364833@student.ncirl.ie

Final Note

Your participation helps to improve understanding of the factors that contribute to mental health outcomes in Black adults. Your input is invaluable, and we thank you for your time and effort.

Appendix D

1. Demographic Questions

• Age: What is your age?

(Open text box)

- Gender: How do you identify?
 - o Man
 - Woman
 - Non-binary
 - o Prefer not to say
 - o Prefer to self- describe (please specify)
- Ethnicity: Do you identify as Black or of African or Caribbean descent.
 - o Yes
 - o No
- Socio- economic status

Think of a 10-step ladder as representing where people stand in Ireland.

At the top of the ladder are people who are the best off - those with the most money, highest levels of education, and most respected jobs.

At the bottom are people who are the worst off - those with the least money, least education, least respected jobs, or no job at all. The higher up you are on this ladder, the closer you are to the people at the very top; the lower you are, the closer you are to the people at the very bottom.

Where would you place yourself on this ladder?

Please choose a number between 1 and 10 to indicate where you think you stand at this point in your life relative to other people in Ireland.

Appendix E

MSPSS (Multidimensional Scale of Perceived Social Support)

Instructions: We are interested in how you feel about the following statements. Read each statement carefully.

Indicate how you feel about each statement.

Check the "1" if you Very Strongly Disagree

Check the "2" if you Strongly Disagree

Check the "3" if you Mildly Disagree

Check the "4" if you are Neutral

Check the "5" if you Mildly Agree

Check the "6" if you Strongly Agree

Check the "7" if you Very Strongly Agree

	Very strongly disagree	Strongly disagree	Mildly disagree	Neutral	Mildly agree	Strongly agree	Very strongly agree
There is a							
special person who is around							

	,	,	,		•	
when I am in						
need						
There is a						
special person						
with whom I can						
share joys and						
sorrows						
My family really						
tries to help me						
<u> </u>						
I get the						
emotiotional						
help & support I						
need from my						
family						
I have a special					 	
person who is a						
real source of						
comfort to me						
My friends really						
try to help me						
I can count on						
my friends when						
things go wrong						
I can talk about						
my problems						
with my family						
I have friends						
with whom I can						
share my joys						
and sorrows						
There is a						
special person						
in my life who						
cares about my						
feelings						
My family is						
willing to help						
me make						
decisions						
I can talk about				_		
my problems						
with						
myfriends.						

Appendix F

DASS-21

Please read each statement and circle a number 0, 1, 2 or 3 which indicates how much the statement applied to you over the past week. There are no right or wrong answers. Do not spend too much time on any statement.

The rating scale is as follows:

- 0- Did not apply to me at all
- 1- Applied to me to some degree, or some of the time
- 2- Applied to me to a considerable degree or a good part of time
- 3- Applied to me very much or most of the time

1 (s) I found it hard to wind down	0 1 2 3
2 (a) I was aware of dryness of my mouth	0 1 2 3
3 (d) I couldn't seem to experience any	0 1 2 3
positive feeling at all	
4 (a) I experienced breathing difficulty (e.g.	0 1 2 3
excessively rapid breathing, breathlessness	
in the absence of physical exertion)	
5 (d) I found it difficult to work up the	0 1 2 3
initiative to do things	
6 (s) I tended to over-react to situations	0 1 2 3
7 (a) I experienced trembling (e.g. in the	0 1 2 3
hands	
7 (a) I experienced trembling (e.g. in the	0 1 2 3
hands)	
8 (s) I felt that I was using a lot of nervous	0 1 2 3
energy	
9 (a) I was worried about situations in	0 1 2 3
which I might panic and make a fool of	
myself	
10 (d) I felt that I had nothing to look	0 1 2 3
forward to	
11 (s) I found myself getting agitated	0 1 2 3

12 (s) I found it difficult to relax	0 1 2 3
13 (d) I felt down-hearted and blue	0 1 2 3
14 (s) I was intolerant of anything that kept	0 1 2 3
me from getting on with what I was doing	
15 (a) I felt I was close to panic	0 1 2 3
16 (d) I was unable to become enthusiastic	0 1 2 3
about anything	
17 (d) I felt I wasn't worth much as a person	0 1 2 3
18 (s) I felt that I was rather touchy	0 1 2 3
19 (a) I was aware of the action of my heart	0 1 2 3
in the absence of physical exertion (e.g.	
sense of heart rate increase, heart missing a	
beat)	
20 (a) I felt scared without any good reason	0 1 2 3
21 (d) I felt that life was meaningless	0 1 2 3

Appendix G

1. ATSPPH-SF

Read each statement carefully and indicate your degree of agreement using the scale below. In responding, please be completely candid.

0 = Disagree 1 = Partly disagree 2 = Partly agree 3 = Agree

- 1. If I thought I was having a mental breakdown, my first thought would be to get professional attention.
- 2. Talking about problems with a psychologist seems to me as a poor way to get rid of emotional problems.
- 3. If I were experiencing a serious emotional crisis, I would be sure that psychotherapy would be useful.
- 4. I admire people who are willing to cope with their problems and fears without seeking professional help.
- 5. I would want to get psychological help if I were worried or upset for a long period of time.
- 6. I might want to have psychological counseling in the future.
- 7. A person with an emotional problem is not likely to solve it alone; he or she is more likely to solve it with professional help.
- 8. Given the amount of time and money involved in psychotherapy, I am not sure that it would benefit someone like me.
- 9. People should solve their own problems, therefore, getting psychological counseling would be their last resort.
- 10. Personal and emotional troubles, like most things in life, tend to work out by themselves.

Appendix H

McMaster Family Functioning scale

The General Functioning Subscale of the Family Assessment Device is a 12-item questionnaire which constitutes part of the larger Family Assessment Device. The General Functioning Subscale has been widely used as a brief method of assessing overall family functioning. It is designed to be completed by family members over 12 years of age.

Each item is rated from 1 (Strongly Agree) to 4 (Strongly Disagree) with negatively worded items being reverse scored and missing values rated as 99. A total score can be calculated from the valid summed item scores and divided by 12 (ignoring the 99's). Higher scores generally indicate poorer family functioning.

General Functioning

The following questions contains a number of statements about families- how your family members communicate, support one another, and work through problems. Please think about your **family as a whole** and decide how well it describes your family

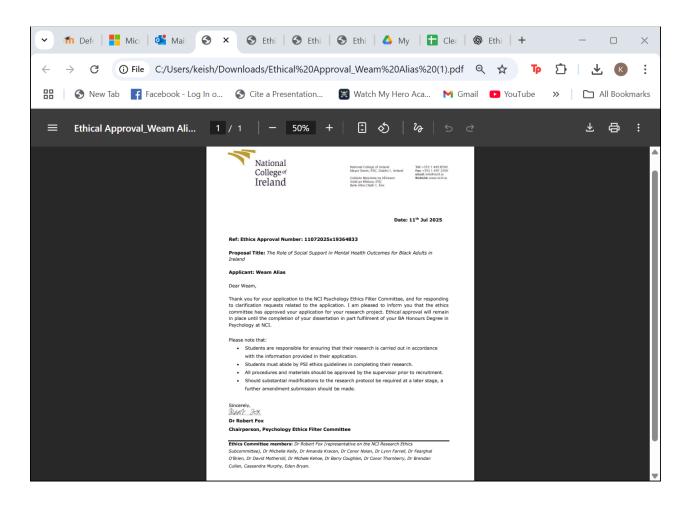
There are 12 statements below. For each one, please indicate how much you agree or disagree, using the following scale:

- 1 = Strongly Agree
- 2 = Agree
- 3 = Disagree
- **4 = Strongly Disagree**

There are no right or wrong answers. Please answer honestly based on your personal experience with your family.

- 1. Planning family activities is difficult because we misunderstand each other.
- 2. In time of crisis we can turn to each other for support.
- 3. We cannot talk to each other about sadness we feel.
- 4. Individuals are accepted for what they are.
- 5. We avoid discussing our fears and concerns.
- 6. We can express feelings to each other.

- 7. There are lots of bad feelings in the family.
- 8. We feel accepted for what we are.
- 9. Making decisions is a problem for our family.
- 10. We are able to make decisions about how to solve problems.
- 11. We don't get along well together.
- 12. We confide in each other.



Appendix I

Model Summary

					Change Statistics				
		R	Adjusted R	Std. Error of the	R Square	F			Sig. F
Model	R	Square	Square	Estimate	Change	Change	df1	df2	Change
1	.400ª	.160	.141	9.558	.160	8.112	2	85	<.001
2	.410 ^b	.168	.139	9.568	.008	.822	1	84	.367

- a. Predictors: (Constant), MSPSS_Centered, Macarthur_SES_Centered
- b. Predictors: (Constant), MSPSS_Centered, Macarthur_SES_Centered, MSPSS_x_SES

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1482.146	2	741.073	8.112	<.001 ^b
	Residual	7764.718	85	91.350		
	Total	9246.864	87			
2	Regression	1557.354	3	519.118	5.671	.001c
	Residual	7689.510	84	91.542		
	Total	9246.864	87			

- a. Dependent Variable: DASS_TOTAL_DEP
- b. Predictors: (Constant), MSPSS_Centered, Macarthur_SES_Centered
- c. Predictors: (Constant), MSPSS_Centered, Macarthur_SES_Centered, MSPSS_x_SES

		Unstand	Unstandardized		Standardized		Collinearity	
		Coefficients		Coefficients			Statis	stics
							Toleranc	
Model		В	Std. Error	Beta	t	Sig.	е	VIF
1	(Constant)	13.655	1.019		13.402	<.001		
	Macarthur_SES_Cent ered	-1.754	.675	260	-2.597	.011	.988	1.013
	MSPSS_Centered	-2.427	.876	277	-2.770	.007	.988	1.013
2	(Constant)	13.777	1.029		13.392	<.001		
	Macarthur_SES_Cent ered	-1.777	.676	263	-2.627	.010	.986	1.014
	MSPSS_Centered	-2.521	.883	288	-2.854	.005	.974	1.027
	MSPSS_x_SES	604	.667	091	906	.367	.984	1.017
_			_					

a. Dependent Variable: DASS_TOTAL_DEP

Appendix J

Model Summary

					Std. Error	Change		Statis	tics	
			R	Adjusted	of the	R Square	F			Sig. F
	Model	R	Square	R Square	Estimate	Change	Change	df1	df2	Change
	1	.394ª	.155	.135	9.207	.155	7.804	2	85	<.001
	2	.402b	.162	.132	9.227	.006	.645	1	84	.424

- a. Predictors: (Constant), MSPSS_Centered, Macarthur_SES_Centered
- b. Predictors: (Constant), MSPSS_Centered, Macarthur_SES_Centered, MSPSS_x_SES

ANOVA^a

		Sum of		Mean								
Model		Squares	df	Square	F	Sig.						
1	Regression	1323.235	2	661.618	7.804	<.001 ^b						
	Residual	7206.037	85	84.777								
	Total	8529.273	87									
2	Regression	1378.171	3	459.390	5.396	.002c						
	Residual	7151.101	84	85.132								
	Total	8529.273	87									

- a. Dependent Variable: DASS_TOTAL_ANX
- b. Predictors: (Constant), MSPSS_Centered, Macarthur_SES_Centered
- $c.\ Predictors:\ (Constant),\ MSPSS_Centered,\ Macarthur_SES_Centered,$

 $\mathsf{MSPSS}_x_\mathsf{SES}$

Coefficients^a

		Unstand	dardized	Standardized			Collinearity	
		Coefficients		Coefficients			Statis	stics
							Toleranc	
Model		В	Std. Error	Beta	t	Sig.	е	VIF
1	(Constant)	12.632	.982		12.869	<.001		
	Macarthur_SES_Cent	-1.513	.651	233	-2.327	.022	.988	1.013
	ered							
	MSPSS_Centered	-2.460	.844	292	-2.914	.005	.988	1.013
2	(Constant)	12.736	.992		12.838	<.001		
	Macarthur_SES_Cent	-1.533	.652	236	-2.351	.021	.986	1.014
	ered							
	MSPSS_Centered	-2.540	.852	302	-2.982	.004	.974	1.027
	MSPSS_x_SES	517	.643	081	803	.424	.984	1.017
1								

a. Dependent Variable: DASS_TOTAL_ANX

Appendix K

Model Summary

					Std. Error	Change Statistic			tics	
			R	Adjusted	of the	R Square	F			Sig. F
	Model	R	Square	R Square	Estimate	Change	Change	df1	df2	Change
	1	.337ª	.113	.092	8.700	.113	5.428	2	85	.006
	2	.339b	.115	.083	8.743	.002	.166	1	84	.685

- a. Predictors: (Constant), MSPSS_Centered, Macarthur_SES_Centered
- b. Predictors: (Constant), MSPSS_Centered, Macarthur_SES_Centered,

MSPSS_x_SES

ANOVA^a

M	odel	Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	821.775	2	410.888	5.428	.006 ^b
	Residual	6434.225	85	75.697		
	Total	7256.000	87			
2	Regression	834.461	3	278.154	3.639	.016 ^c
	Residual	6421.539	84	76.447		
	Total	7256.000	87			

- a. Dependent Variable: DASS TOTAL STR
- b. Predictors: (Constant), MSPSS_Centered, Macarthur_SES_Centered
- c. Predictors: (Constant), MSPSS Centered, Macarthur SES Centered, MSPSS x SES

			••••					
		Unstand	ardized	Standardized			Collinea	rity
		Coefficie	ents	Coefficients			Statisti	cs
			Std.					
Mod	el	В	Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	16.026	.928		17.278	<.001		
	Macarthur_SES_Centered	-1.597	.615	267	-2.599	.011	.988	1.013
	MSPSS_Centered	-1.375	.798	177	-1.723	.088	.988	1.013
2	(Constant)	16.076	.940		17.100	<.001		
	Macarthur_SES_Centered	-1.607	.618	269	-2.599	.011	.986	1.014
	MSPSS_Centered	-1.413	.807	182	-1.751	.084	.974	1.027
	MSPSS_x_SES	248	.609	042	407	.685	.984	1.017

a. Dependent Variable: DASS_TOTAL_STR

Appendix L

Model Summary

				Std.		Chang	e Statis	stics	
			Adjusted	Error of	R				
		R	R	the	Square	F			Sig. F
Model	R	Square	Square	Estimate	Change	Change	df1	df2	Change
1	.428a	.183	.164	9.619	.183	9.643	2	86	<.001
2	.436 ^b	.191	.162	9.632	.007	.771	1	85	.382

a. Predictors: (Constant), FAD_Centered, MSPSS_Centered

b. Predictors: (Constant), FAD_Centered, MSPSS_Centered, MSPSS_x_FAD

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1784.587	2	892.293	9.643	<.0
	Residual	7957.795	86	92.533		
	Total	9742.382	88			
2	Regression	1856.128	3	618.709	6.669	<.0
	Residual	7886.254	85	92.779		
	Total	9742.382	88			

a. Dependent Variable: DASS TOTAL DEP

b. Predictors: (Constant), FAD_Centered, MSPSS_Centered

c. Predictors: (Constant), FAD_Centered, MSPSS_Centered, MSPSS_ x_FAD

Coefficients

			000	incicits				
		Unstand	lardized	Standardized			Collin	earity
		Coeffi	cients	Coefficients			Stati	stics
							Toleranc	
Model		В	Std. Error	Beta	t	Sig.	е	VIF
1	(Constant)	14.957	1.088		13.754	<.001		
	MSPSS_Cente red	-2.245	.898	251	-2.501	.014	.940	1.064
	FAD_Centered	5.472	1.894	.290	2.888	.005	.940	1.064
2	(Constant)	14.694	1.130		13.009	<.001		
	MSPSS_Cente red	-2.495	.943	279	-2.646	.010	.854	1.170
	FAD_Centered	5.317	1.905	.282	2.791	.006	.932	1.073
	MSPSS_x_FA	-1.461	1.664	090	878	.382	.909	1.101

a. Dependent Variable: DASS_TOTAL_DEP

Appendix M

Model Summary

				Std. Error		Change S	Statis	tics	
		R	Adjusted	of the	R Square	F			Sig. F
Model	R	Square	R Square	Estimate	Change	Change	df1	df2	Change
1	.377ª	.142	.122	9.270	.142	7.132	2	86	.001
2	.381 ^b	.145	.115	9.309	.003	.297	1	85	.587

- a. Predictors: (Constant), FAD_Centered, MSPSS_Centered
- b. Predictors: (Constant), FAD_Centered, MSPSS_Centered, MSPSS_x_FAD

ANOVA^a

		Sum of		Mean		
Model		Squares	df	Square	F	Sig.
1	Regression	1225.801	2	612.900	7.132	.001 ^b
	Residual	7391.008	86	85.942		
	Total	8616.809	88			
2	Regression	1251.535	3	417.178	4.815	.004°
	Residual	7365.274	85	86.650		
	Total	8616.809	88			

- a. Dependent Variable: DASS_TOTAL_ANX
- b. Predictors: (Constant), FAD_Centered, MSPSS_Centered
- c. Predictors: (Constant), FAD_Centered, MSPSS_Centered, MSPSS_x_FAD

		Unstandardiz Coefficients	Unstandardized Coefficients				Collin Stati	-
Model		В	Std. Error	Beta	t	Sig.	Toleranc e	VIF
1	(Constant)	13.387	1.048		12.773	<.001		
	MSPSS_Cente red	-2.340	.865	279	-2.705	.008	.940	1.064
	FAD_Centered	3.458	1.826	.195	1.894	.062	.940	1.064
2	(Constant)	13.229	1.092		12.119	<.001		
	MSPSS_Cente red	-2.490	.911	296	-2.732	.008	.854	1.170

FAD_Center	ed 3.365	1.841	.190	1.828	.071	.932	1.073
MSPSS_x_F	A876	1.608	057	545	.587	.909	1.101
D							

a. Dependent Variable: DASS_TOTAL_ANX

Appendix N

Model Summary

					-	Change S	tatist	ics	
		R	Adjusted R	Std. Error of the	R Square F				Sig. F
Model	R	Square	Square	Estimate	Change	Change	df1	df2	Change
1	.308ª	.095	.074	8.975	.095	4.499	2	86	.014
2	.308b	.095	.063	9.027	.000	.004	1	85	.950

- a. Predictors: (Constant), FAD_Centered, MSPSS_Centered
- b. Predictors: (Constant), FAD_Centered, MSPSS_Centered, MSPSS_x_FAD

ANOVA^a

		Sum of		Mean		
Model		Squares	df	Square	F	Sig.
1	Regression	724.687	2	362.344	4.499	.014 ^b
	Residual	6926.818	86	80.544		
	Total	7651.506	88			
2	Regression	725.005	3	241.668	2.966	.037c
	Residual	6926.501	85	81.488		
	Total	7651.506	88			

- a. Dependent Variable: DASS_TOTAL_STR
- b. Predictors: (Constant), FAD_Centered, MSPSS_Centered
- c. Predictors: (Constant), FAD_Centered, MSPSS_Centered, MSPSS_ x_FAD

		_	lardized cients	Standardized Coefficients			Collin Stati	-
							Toleranc	
Model		В	Std. Error	Beta	t	Sig.	е	VIF
1	(Constant)	16.941	1.015		16.697	<.001		
	MSPSS_Cente red	-1.378	.838	174	-1.645	.104	.940	1.064
	FAD_Centered	3.586	1.767	.215	2.029	.046	.940	1.064
2	(Constant)	16.923	1.059		15.987	<.001		

MSPSS_Cente red	-1.395	.884	176	-1.578	.118	.854	1.170
FAD_Centered	3.576	1.785	.214	2.003	.048	.932	1.073
MSPSS_x_FA	097	1.559	007	062	.950	.909	1.101

a. Dependent Variable: DASS_TOTAL_STR

Appendix O

Model Summary

				Std. Error	Change Statistics				
		R Adjusted		of the	R Square F				Sig. F
Mode	l R	Square	R Square	Estimate	Change	Change	df1	df2	Change
1	.356ª	.126	.106	9.948	.126	6.222	2	86	.003
2	.358b	.128	.097	9.996	.002	.173	1	85	.679

- a. Predictors: (Constant), ATSPPH_Centered, MSPSS_Centered
- b. Predictors: (Constant), ATSPPH_Centered, MSPSS_Centered, MSPSS_x_ATSPPH

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig
1	Regression	1231.448	2	615.724	6.222	
	Residual	8510.934	86	98.964		
	Total	9742.382	88			
2	Regression	1248.710	3	416.237	4.165	
	Residual	8493.672	85	99.926		
	Total	9742.382	88			

- a. Dependent Variable: DASS TOTAL DEP
- b. Predictors: (Constant), ATSPPH_Centered, MSPSS_Centered
- c. Predictors: (Constant), ATSPPH_Centered, MSPSS_Centered, MSPSS_x_ATSPPH

Coefficients^a

			000.					
		Unstand	lardized	Standardized			Collin	earity
		Coeffi	Coefficients				Stati	stics
							Toleranc	
Model		В	Std. Error	Beta	t	Sig.	е	VIF
1	(Constant)	13.865	1.054		13.149	<.001		
	MSPSS_Center ed	-2.567	.924	287	-2.777	.007	.948	1.055
	ATSPPH_Center ed	302	.203	154	-1.487	.141	.948	1.055
2	(Constant)	13.959	1.083		12.886	<.001		
	MSPSS_Center ed	-2.658	.954	298	-2.785	.007	.898	1.113
	ATSPPH_Center ed	302	.204	154	-1.482	.142	.948	1.055
	MSPSS_x_ATS PPH	066	.158	043	416	.679	.944	1.059

a. Dependent Variable: DASS_TOTAL_DEP

Appendix P

Model Summary

					, ,				
				Std. Error	Change Statist			tics	
		R	Adjusted	of the R Square		F			Sig. F
Model	R	Square	R Square	Estimate	Change	Change	df1	df2	Change
1	.382ª	.146	.126	9.251	.146	7.338	2	86	.001
2	.386b	.149	.119	9.287	.003	.336	1	85	.564

- a. Predictors: (Constant), ATSPPH_Centered, MSPSS_Centered
- b. Predictors: (Constant), ATSPPH_Centered, MSPSS_Centered, MSPSS_x_ATSPPH

ANOVA^a

		Sum of		Mean		
Model		Squares	df	Square	F	Sig.
1	Regression	1256.143	2	628.071	7.338	.001b
	Residual	7360.666	86	85.589		
	Total	8616.809	88			
2	Regression	1285.110	3	428.370	4.966	.003c
	Residual	7331.699	85	86.255		
	Total	8616.809	88			

- a. Dependent Variable: DASS_TOTAL_ANX
- $b.\ Predictors:\ (Constant),\ ATSPPH_Centered,\ MSPSS_Centered$
- c. Predictors: (Constant), ATSPPH_Centered, MSPSS_Centered,

MSPSS_x_ATSPPH

			Standardize				
	Unstan	dardize	d			Collinea	arity
	d Coef	ficients	Coefficients			Statisti	cs
		Std.				Toleranc	
Model	В	Error	Beta	t	Sig.	е	VIF
1 (Constant)	12.69	.981		12.94	<.00		
	7			7	1		

	MSPSS_Centered	-2.352	.860	280	-2.736	.008	.948	1.05 5
	ATSPPH_Centered	375	.189	204	-1.989	.050	.948	1.05 5
2	(Constant)	12.81 8	1.006		12.73 6	<.00 1		
	MSPSS_Centered	-2.470	.887	294	-2.786	.007	.898	1.11
	ATSPPH_Centered	376	.189	204	-1.983	.051	.948	1.05 5
	MSPSS_x_ATSPP H	085	.147	060	580	.564	.944	1.05 9

a. Dependent Variable: DASS_TOTAL_ANX

Appendix Q

Model Summary

					Change Statistics								
		R	Adjusted R	Std. Error of the	R Square	F			Sig. F				
Model	R	Square	Square	Estimate	Change	Change	df1	df2	Change				
1	.330ª	.109	.088	8.905	.109	5.242	2	86	.007				
2	.331 ^b	.109	.078	8.954	.001	.072	1	85	.789				

- a. Predictors: (Constant), ATSPPH_Centered, MSPSS_Centered
- b. Predictors: (Constant), ATSPPH_Centered, MSPSS_Centered, MSPSS_x_ATSPPH

		Sum of		Mean		
Model		Squares	df	Square	F	Sig.
1	Regression	831.379	2	415.690	5.242	.007b
	Residual	6820.126	86	79.304		
	Total	7651.506	88			
2	Regression	837.166	3	279.055	3.481	.019 ^c
	Residual	6814.340	85	80.169		
	Total	7651.506	88			

- a. Dependent Variable: DASS_TOTAL_STR
- b. Predictors: (Constant), ATSPPH_Centered, MSPSS_Centered
- c. Predictors: (Constant), ATSPPH_Centered, MSPSS_Centered,

MSPSS_x_ATSPPH

			Standardize				
	Unstan	dardize	d			Collinea	arity
	d Coefficients C		Coefficients			Statisti	cs
		Std.				Toleranc	
Model	В	Error	Beta	t	Sig.	е	VIF
1 (Constant)	16.22	.944		17.18	<.00		
	5			8	1		

	MSPSS_Centered	-1.351	.828	171	-1.633	.106	.948	1.05 5
	ATSPPH_Centered	427	.182	246	-2.351	.021	.948	1.05 5
2	(Constant)	16.17 0	.970		16.66 5	<.00 1		
	MSPSS_Centered	-1.299	.855	164	-1.519	.132	.898	1.11
	ATSPPH_Centered	427	.183	246	-2.337	.022	.948	1.05 5
	MSPSS_x_ATSPP H	.038	.142	.028	.269	.789	.944	1.05 9

a. Dependent Variable: DASS_TOTAL_STR