

An Examination of Perceived Multidimensional Social Support and Well-Being within Group Exercise Programs for Community-Dwelling Seniors

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ABSTRACT

This study investigates the relationships between perceived multidimensional social support and well-being within group exercise programs for community-dwelling seniors, addressing a gap in the existing literature. The research involved 162 older adults from two communities in Selangor, Malaysia, who participated in structured group exercise sessions. A quantitative survey methodology was employed, utilizing the Multidimensional Scale of Perceived Social Support (MSPSS) to assess perceived support and the BBC Well-Being Scale to evaluate overall well-being. Community leaders were engaged to facilitate the study's approval and implementation. Descriptive analysis was conducted to summarize the demographic and variable data, while Pearson correlation analysis was employed to explore the relationships between the variables. Notably, the study revealed that 63% of participants were male, highlighting a gender disparity in exercise participation consistent with prior research. The findings indicated no significant correlation between perceived social support and overall well-being among respondents ($r(160) = -0.113, p > .05$), with a weak negative correlation suggesting that increases in perceived social support did not translate into meaningful improvements in well-being. These results challenge existing literature that typically emphasizes a positive relationship between social support and well-being, suggesting that the dynamics of these relationships may be more complex in the context of community-based group exercise programs for older adults. Further research is warranted to explore the underlying factors influencing these relationships in this demographic.

Keywords: Multidimensional Social Perceived Social Support, Well-Being, Community-Dwelling Seniors, Group Exercise Programs.

INTRODUCTION

Social support, a crucial element for overall well-being, is a multifaceted construct that encompasses the perceived or actual provision of care, assistance, and affirmation from an individual's social network (Agneessens et al., 2006). Multidimensional social support, specifically, recognizes that support is not a unitary concept but rather comprises various types and stems from different sources. It is often conceptualized as the perceived adequacy of support from key relational groups, typically including family, friends, and significant others (Zimet et al., 1988).

The distinction between these sources is critical because deficits or strengths in one area of support may not necessarily be compensated for by another, and each source can uniquely contribute to an individual's resilience and ability to cope with stressors (Lai et al., 2018). Research has consistently demonstrated that higher levels of perceived social support, when considered across these various dimensions, are associated with a wide range of positive outcomes. These include, but are not limited to, reduced psychological distress, enhanced coping efficacy, better adherence to medical regimens, and improved overall quality of life (Uchino et al., 2018).

Therefore, a multidimensional approach to assessing social support offers a more nuanced and comprehensive understanding of how social relationships contribute to individual well-being and protect against the

deleterious effects of stress. This support can manifest in several forms, such as emotional support (e.g., empathy, affection), instrumental support (e.g., tangible aid, practical help), and informational support (e.g., advice, guidance) (Cohen, 2004). Understanding these different dimensions is vital because the perceived availability and adequacy of support from various domains can have distinct implications for an individual's mental and physical health outcomes.

For community-dwelling seniors, multidimensional social support takes on particular significance. As individuals age, they may encounter various life changes, such as retirement, loss of loved ones, and increased health challenges, making robust social networks vital (Charles & Carstensen, 2010). The availability of support from diverse sources can buffer against the adverse effects of stress, reduce feelings of loneliness, and promote mental and physical health (Ozbay et al., 2007); *The Influence of Providing and Receiving Social Support on Older Adults' Well-being*). Research consistently demonstrates that older adults with strong multidimensional social support systems tend to experience higher life satisfaction, better cognitive function, and a reduced risk of frailty and mortality (Lim et al., 2016). Understanding the various dimensions and sources of social support is therefore essential for developing effective strategies to enhance the quality of life and well-being of older adults living independently in the community.

Group exercise has emerged as a powerful tool not only for enhancing physical health but also for fostering social well-being. Engaging in physical activity within a group setting provides individuals with opportunities to develop meaningful social connections, which can contribute to a broad spectrum of social support. Multidimensional social support encompassing emotional, informational, instrumental, and appraisal support is crucial for psychological resilience and long-term adherence to healthy behaviours (Szkody & McKinney, 2020). Research indicates that group exercise environments promote mutual encouragement, shared goals, and a sense of belonging, which can significantly enhance perceived social support (Li et al., 2021). These social benefits are particularly valuable in mitigating feelings of isolation, improving self-esteem, and reinforcing consistent participation in exercise routines.

Group exercise programs can offer a unique opportunity to enhance social support and foster a sense of community. These programs provide a platform for individuals to connect with like-minded people, share experiences, and receive encouragement from peers (Li et al., 2021).

Previous study explored the role of social support in group exercise settings (Burke et al., 2005). They found that group cohesion, a measure of social support within a group, was positively correlated with exercise adherence. The sense of belonging and camaraderie created in group exercise settings can motivate individuals to continue participating and adhere to their exercise routines.

As such, community social support and group exercise participation are intertwined. Social support can facilitate participation in group exercise programs, while group exercise programs can provide opportunities for social interaction and support (Kennedy et al., 2022). By fostering a sense of community and providing encouragement, both factors can contribute to increased physical activity levels and improved overall health.

Numerous studies have demonstrated a strong association between social support and exercise adherence. As previous study found that individuals with higher levels of social support were more likely to engage in regular exercise and maintain their exercise routines. Social support can provide motivation, encouragement, and accountability, which are crucial factors in overcoming barriers to exercise (Lee et al., 2017).

Therefore, this study primarily seeks to understand the connections between perceived social support (assessed via the Multidimensional Scale of Perceived Social Support) and the well-being of community-dwelling older adults who take part in group exercise programs.

METHODS

Participants

This study recruited 162 seniors from two communities in Selangor, Malaysia, who engaged in group exercise programs. These programs, conducted two to three times weekly, were facilitated by community volunteers and featured a variety of exercises, including brisk walking, tai chi, Zumba, and line dancing. Information regarding the Gender of the respondents is summarized in Table 1.

Table 1: Gender of the Respondents

Gender	Frequency	Percent (Rajkumar)
Male	102	63
Female	60	37

In collecting age-related data, participants were requested to specify the decade in which they were born (e.g., 1940s, 1950s, 1960s, or 1970s). This approach was adopted in lieu of asking for their precise age to

accommodate sensitivities some individuals may have regarding such disclosure. The age characteristics of the respondents are detailed in Table 2. Respondents born in the 1940s are over 80 years old (1.2%), those born in the 1950s are between 70 and 80 years old (29.6%), and those born in the 1960s are between 60 and 70 years old.

Table 2: Age Characteristics of the Respondents

Age Decade	Frequency	Percent (Rajkumar)
40s	2	1.2
50s	48	29.6
60s	112	69.1

Instruments

This study employed a quantitative survey utilizing two sets of questionnaires. The first questionnaire used in this study is the Multidimensional Scale of Perceived Social Support-MSPSS (Zimet et al., 1988). The MSPSS is a 12-item self-report instrument designed to assess perceived social support from three sources: family, friends, and significant others. Participants rate each item on a 7-point Likert scale, ranging from very strongly disagree to very strongly agree, reflecting the degree to which they perceive support from these sources. The scale has been widely used in research due to its reliability and validity in measuring perceived social support across diverse populations.

The second questionnaire used in this study was the BBC Well-Being Scale (Kinderman et al., 2011). This scale is designed to assess an individual's overall sense of well-being and psychological health. It typically includes items that evaluate various aspects of well-being, such as life satisfaction, emotional balance, and general mental health. Participants respond to these items, often on a Likert scale, providing insights into their subjective well-being. The BBC Well-Being Scale has been utilized in research to measure psychological well-being across different populations and contexts, offering a comprehensive overview of an individual's mental health status. Items reflected 9 domains: physical health, psychological health, social relationships; environment; self-acceptance; autonomy; environmental mastery; purpose in life; and personal growth. In addition, 3 items were selected to reflect low mood. The initial version had 25 items and was included in a battery of measures presented in a major online investigation of the causes of mental ill health. Participants were adults. Data were analysed with additional measures chosen to address the relationship between well-being and mental health and other key psychosocial issues. Exploratory and confirmatory factor analysis resulted in a 24-item scale with a 3-factor solution including themes of psychological well-being, physical health and well-being and relationships. The scale had good internal consistency and correlated significantly with key demographic variables and measures of concurrent validity. Exploratory factor-analysis suggested a three-factor solution including themes of psychological well-being, physical health and well-being and relationships. The total 24-item scale had good internal consistency ($\alpha = .935$) and correlated significantly with key demographic variables and measures of concurrent validity.

Procedures

Community leaders were approached, and an initial meeting was conducted to obtain their approval for conducting this study. The researchers explained the research procedures and details of the study to the community leaders. Upon receiving their approval, the leaders provided the mobile contact information of all members to the researchers. The two questionnaires were converted into Google Forms and distributed to the respondents. A reminder was sent to encourage them to complete the questionnaires. Two weeks after distributing the questionnaires, a total of 162 complete responses were received for data analysis.

Statistical Analysis

Descriptive analysis was conducted to summarize the overall data for the variables in this study. Additionally, Pearson correlation analysis was used to examine the relationships between the variables on the Sub-Scales of the Multidimensional Scale of Perceived Social Support (MSPSS) questionnaire and the BBC Well-Being Sub-Scales. The significance level was set at $p < .05$, and the statistical analyses were conducted using SPSS Version 29 (IBM Corp., 2021).

RESULTS

Descriptive analyses of the variables in this study are presented in Table 3.

Table 3: Descriptive Analyses of the Variables

Variables	N	Mean (M)	Std. Deviation (SD)
Significant Other Scores	162	24.32	3.55
Family Scores	162	24.32	3.55
Friends Scores	162	24.32	3.55
Psychological Well-Being Scores	162	44.48	8.82
Physical Health and Well-Being Scores	162	26.95	5.73
Relationship Scores	162	19.25	4.10
Overall MSPSS Scores	162	72.96	10.64
Overall Well-Being	162	90.68	18.55

Pearson correlation analysis was conducted to examine the relationships between the Multidimensional Scales of Perceived Social Support (MSPSS) and the BBC Well-Being Scales, as shown in Table 4.

Table 4: Pearson Correlation Analysis of the Variables

Variables	1	2	3	4	5	6	7	8
1.Significant Other	-							
2.Family	1.000**	-						
3.Friends	1.000**	1.000**	-					
4.Psychological Well-Being	-.133	-.133	-.133	-				
5.Physical Health Well-Being	-.095	-.095	-.095	.983**	-			
6.Relationships	-.092	-.092	-.092	.978**	.999**	-		
7.Overall MSPSS Scores	1.000**	1.000**	1.000**	-.133	-.095	-.092	-	
8.Overall Well Being	-.113	-.113	-.113	.995**	.997**	.994**	-.113	-

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

DISCUSSION

Interestingly, the respondents in this study born in the 1940s are over 80 years old with (1.2%), those born in the 1950s are between 70 and 80 years old (29.6%), and those born in the 1960s are between 60 and 70 years old (69.1). It is noteworthy that observations from specific local contexts, such as a study indicating that individuals aged 80 and above are actively involved in group exercise across two communities, highlight the remarkable capacity for continued physical engagement in later life. This phenomenon, where octogenarians and even older individuals participate in structured physical activity, aligns with a growing body of research that underscores the feasibility and benefits of exercise for the very old.

While advancing age can present numerous health challenges and is sometimes associated with increased physical inactivity (Minhat et al., 2024), the engagement of seniors aged 80 and over in community group exercise is a testament to their resilience and the supportive environments that can foster such participation. Studies have demonstrated that long-term participation in community-based group exercise can yield significant physical benefits, such as improved lower extremity muscle strength and a delay in age-related declines in walking speed and physical function, even in older cohorts (Hayashi et al., 2021). On top of that, specifically investigated a community group exercise program and found positive effects on physical function that were dependent on long-term participation, with their study including a large sample of older adults followed over several years (Hayashi et al., 2021).

The involvement of individuals in such advanced age groups in regular exercise is often multifaceted. Motivations can range from a desire to maintain physical health and functional independence to the pursuit of social connection and psychological well-being (Morris & Roychowdhury, 2020). Group settings, in particular, offer crucial social support, enjoyment, and a sense of community, which are strong drivers for adherence to exercise programs among older adults (Creighton et al., 2022). Regular group exercise can help structure daily life, prevent isolation, and provide mutual support among peers, contributing to overall balanced health (Komatsu et al., 2017).

The findings from a localized study focusing on two communities would add valuable, context-specific insights into how such engagement is achieved and sustained among those aged 80 and above. Factors such as the specific design of the exercise programs, the accessibility of facilities, the nature of the social environment within these communities, and individual psychosocial characteristics likely play significant roles (Gidney et al., 2024). Such dedicated participation challenges broad statistics of inactivity and underscores the importance of tailored, community-based initiatives that cater to the oldest segment of the senior population, promoting healthy and active aging.

Observations from a current study on community-based group exercise, indicating a higher participation rate among males (102 respondents, 63%) compared to females (60 respondents, 37%), align with some previous research findings on gender differences in physical activity among older adults (Craft et al., 2014). While patterns can vary across different populations and types of exercise, several studies have reported higher levels of physical activity or exercise participation among senior males (Craft et al., 2014).

For instance, a systematic review focusing on older adults in Malaysia, identified gender as a significant intrapersonal factor influencing physical activity (Felix, 2024). Their review highlighted that being male often acts as a driving factor for physical activity participation, while female older adults have a higher likelihood of physical inactivity (Felix, 2024). This local context is particularly relevant and suggests that the gender distribution observed in the current study may reflect broader trends within the Malaysian senior population. Internationally, research has also pointed to such gender disparities. For example, previous studies revealed that males across various age groups, including those over 70, tend to be more physically active than their female peers (Exley et al., 2025). The research suggested that men often accomplish higher-intensity physical activity, which may be linked to more trips out of the house, though it also noted that women might engage in lower-intensity activity, possibly related to daily household tasks (Exley et al., 2025). Similarly, another research stated that males are consistently reported as more physically active than females regardless of age or the measure used (Hands et al., 2016).

However, it is important to note that the landscape of physical activity and gender is complex and not entirely uniform across all studies or contexts. Some research indicates that older women report higher levels of certain types of physical activity or have different motivations and barriers compared to men (Rúa-Alonso et al., 2023). For example, one study found that older women had higher overall physical activity levels than men, even though men with higher activity levels reported better health-related quality of life (Rúa-Alonso et al., 2023). Therefore, while the finding of the current study, with a higher proportion of male participants in community-based group exercise, is supported by a notable body of literature suggesting greater physical activity engagement among senior males (especially in certain regions like Malaysia), the reasons for these differences are multifaceted. They can be influenced by socio-cultural factors, types of activities offered, historical participation patterns, and individual motivations or barriers (Hu et al., 2021).

The results of this study indicated no significant correlation between the Overall Multidimensional Scale of Perceived Social Support (MSPSS) and Overall Well-Being among the respondents $r(160) = -0.113$ and $p > .05$. Specifically, a weak negative correlation was observed, suggesting that as perceived social support increased, overall well-being did not necessarily improve in a meaningful way. This finding is notable as it challenges some existing literature that posits a stronger positive relationship between social support and well-being (Cohen & Wills, 1985). This support, stemming from various sources and manifesting in different forms, addresses the unique needs and challenges faced by seniors, thereby fostering an environment conducive to engagement and adherence to physical activity. Understanding how these multifaceted layers of support operate can inform strategies to enhance senior well-being and promote active aging. Social support is broadly categorized into several dimensions, each contributing uniquely to a senior's motivation and ability to participate in group exercise. These include emotional, instrumental, informational, and appraisal support (Thomas & Hodges, 2024).

Also, emotional support involves expressions of care, empathy, and encouragement. For seniors, knowing that friends, family, or fellow participants in an exercise group value their efforts can be highly motivating. Sharing experiences and feelings within the group can reduce feelings of isolation and make the exercise environment more welcoming and enjoyable (Davis et al., 2020). The camaraderie and sense of belonging fostered through emotional support can transform exercise from a solitary chore into a positive social event, thereby increasing the likelihood of continued participation.

Additionally, instrumental support refers to tangible aid and practical assistance. This can be particularly important for seniors who may face physical limitations or logistical barriers. Examples include family members providing transportation to the community centre, friends offering to help with household tasks to free up time for exercise, or the exercise program itself offering modifications for different ability levels (Cohen & Wills, 1985). When practical hurdles are minimized through instrumental support, seniors are more likely to find group exercise accessible and sustainable.

On top of that, informational support encompasses the provision of advice, guidance, and useful information. This could involve healthcare providers recommending specific exercise programs, community leaders publicizing available classes, or exercise instructors clearly explaining the benefits and techniques of different activities (Donev et al., 2008). For seniors, having access to accurate information about safe and effective exercise options can alleviate anxieties and build confidence, encouraging them to try and stick with group programs. Peer-to-peer informational support within the group, such as sharing tips on managing exercise-related discomfort, can also be invaluable.

Appraisal support, also known as esteem support, involves feedback and affirmation that helps individuals evaluate their progress and feel capable. Instructors who offer positive reinforcement and acknowledge effort, or peers who cheer each other on, contribute to a senior's sense of accomplishment and self-efficacy (Anderson et al., 2014). When seniors feel competent and recognize their improvements, however small, they are more likely to remain engaged in the exercise program.

The multidimensional nature of social support means that these different types often interact and reinforce each other (Hwang et al., 2009). For instance, a senior receiving encouragement (emotional support) from a friend to join an exercise class might also receive a ride to the class (instrumental support) and information about what to expect (informational support). This comprehensive network of support addresses various potential barriers simultaneously (Hwang et al., 2009).

Research consistently highlights the positive association between social support and physical activity levels in older adults. Studies have shown that seniors with stronger social networks and higher perceived support are more likely to initiate and maintain participation in exercise programs, including community-based group activities (Smith et al., 2017). The group setting itself becomes a powerful source of ongoing, multidimensional support, as participants and instructors co-create a supportive micro-environment.

The implications of these results suggest that while perceived social support is an important factor in psychological health, its direct impact on overall well-being may be more complex than previously understood. Future research may benefit from exploring other variables that could mediate or moderate this relationship.

In conclusion, multidimensional social support is a vital component in promoting senior participation in community group exercise. By providing emotional encouragement, practical assistance, valuable information, and affirming feedback, social networks, comprising family, friends, peers, and program staff can significantly enhance the motivation, accessibility, and overall experience of physical activity for older adults. Recognizing and actively fostering these support mechanisms is essential for developing effective community health initiatives aimed at keeping seniors active and engaged.

Author Contributions

All author contributed equally in this study.

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Ethical Approval

This study received ethical clearance from the SEGi University Research Ethics Committee (SEGIEC/SR/FOELPM/269/2024-2025).

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