Assessing the Level of Social Integration among Adolescents with Special Needs in Northern Namibia

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ABSTRACT

Social integration is widely recognised as a critical determinant of the psychosocial well-being of adolescents, yet empirical evidence on how adolescents with special needs experience social integration remains limited in rural and semi-urban African settings such as northern Namibia. This article is drawn from a broader mixed-methods thesis on social integration and self-concept among adolescents with special needs, and it addresses the first objective of that study, namely to assess the level of social integration among adolescents with special needs in northern Namibia. Anchored in Social Identity Theory, the study adopted a convergent parallel mixed-methods design. A census sample of 192 adolescents with special needs drawn from four government schools in the Oshana and Omusati regions completed the Multidimensional Scale of Perceived Social Support (MSPSS), while six adolescents were purposively selected for semi-structured interviews. Quantitative data were analysed descriptively using SPSS Version 29, while qualitative data were analysed thematically and integrated with the quantitative results. The findings show that adolescents with special needs in northern Namibia generally experience a high level of social integration. Family support recorded the highest mean score (M = 5.17), followed by support from significant others (M = 4.92) and friends (M = 4.72), yielding an overall composite mean of approximately 4.94 on the seven-point MSPSS scale, well above the scale midpoint of 4.00. Qualitative findings corroborated the quantitative results, revealing themes of strong family support, mentorship from significant others such as teachers and hostel matrons, peer companionship, and a general sense of belonging within the school environment. However, some participants reported challenges related to trust among peers, feelings of exclusion in certain situations and limited opportunities for broader social engagement. The study concludes that adolescents with special needs in northern Namibia are, on the whole, socially well integrated, but recommends that schools, families and communities sustain and strengthen structured peer-support, mentorship and guidance programmes to address the residual pockets of exclusion identified among a minority of learners.

Keywords: Social integration, adolescents, special needs, disability, perceived social support, inclusive education, Namibia

INTRODUCTION

Background to the Study

Social integration is recognised as a fundamental determinant of adolescents' psychosocial development, particularly among adolescents with special needs. Social integration refers to the extent to which individuals experience acceptance, belonging, participation and supportive relationships within their families, schools, peer groups and communities (Yuan, Xie, Dong & Yang, 2023). Positive social integration promotes self-concept, confidence, emotional well-being and successful adjustment, whereas social exclusion, discrimination and isolation undermine adolescents' perceptions of their abilities, identity and self-worth (Abadali, Asatsa & Ntaragwe, 2021).

Globally, the social integration of adolescents with disabilities remains a major concern in education and public health. The World Health Organization (WHO, 2023) estimates that approximately 1.3 billion people, equivalent to 15% of the world's population, live with disabilities and the United Nations Children's Fund (UNICEF, 2021) reports that more than 240 million children and adolescents worldwide have disabilities, many of whom are deprived of health services, education and social participation. Compared with adolescents without disabilities, adolescents with disabilities are 49% more likely never to have attended school, 42% less likely to receive basic education and numeracy skills and 41% more likely to experience discrimination (UNICEF, 2021). Although Article 24 of the United Nations Convention on the Rights of Persons with Disabilities (UNCRPD) affirms the right of adolescents with disabilities to inclusive education, many continue to experience limited peer relationships, stigma and social exclusion that negatively affect their psychosocial development (Genovesi, Gaches, McKenzie, Hanlon & Hoekstra, 2024).

Evidence from across the globe shows that mere school admission does not guarantee effective social integration. In the United States, approximately 95% of learners with disabilities attend mainstream schools, yet 10-15% still fail to complete school because of social exclusion, bullying and limited peer relationships (National Center for Education Statistics, 2024). In Pakistan, only 40% of adolescents with disabilities can attend school or access recreational facilities, compared with 60-70% of adolescents without disabilities (UNICEF, 2025), while in India approximately 2.1 million children with disabilities are enrolled in school, yet 28% remain out of school because of inadequate infrastructure, insufficient teacher preparation and stigma (Gupta & Gupta, 2024).

Across Africa, adolescents with disabilities continue to face barriers to social integration despite the existence of inclusive education policies. In Kenya, only one in six children with disabilities attends school because of poverty, stigma and inadequate specialised services (Samia, Oyieke, Kigen & Wamithi, 2022). In South Africa, an estimated 70% of children and adolescents with disabilities remain out of school, and those who are admitted often attend segregated special schools because of a shortage of trained teachers and limited infrastructure (Nseibo, Vergunst, McKenzie, Kelly, Karisa & Watermeyer, 2022). In Zimbabwe, only 10% of children with disabilities receive fitting education, with most attending isolated institutions that provide limited opportunities for peer interaction (UNESCO, 2024).

The Namibian situation reflects many of these global and continental challenges. UNICEF (2021) estimates that approximately 90% of children with disabilities in Namibia do not access preschool or formal education because of stigma, discrimination and shortages of qualified teachers and specialised services. National statistics further indicate that 4.4% of Namibia's population lives with disability, a figure that rises to 5.8% in rural areas where access to education and support services is limited. Although Namibia has adopted the Sector Policy on Inclusive Education (2013) to promote access, participation and quality education for all learners, implementation remains constrained by limited infrastructure, insufficient teacher training and persistent negative societal attitudes towards disability (Ambili, Haihambo & Hako, 2024). In the northern regions specifically, cultural beliefs among the Owambo people that attribute disability to curses, sin or ancestral punishment continue to fuel stigmatisation of adolescents with disabilities and, by extension, their families, undermining opportunities for peer interaction and community participation (Amadhila, John, Lawrence & Van Rooy, 2023).

Statement of the Problem

Despite Namibia's ratification of the UNCRPD and the adoption of national policy commitments to inclusive education, there remains limited empirical evidence on how adolescents with special needs in northern Namibia actually experience social integration in their day-to-day lives. Most previous Namibian studies, such as those by Sheetheni (2021) and Nghole (2025), have concentrated on policy implementation, educational access, infrastructure and teacher preparedness, while giving little attention to learners' lived psychosocial experiences of peer relationships, family support and sense of belonging. Studies from elsewhere in Africa, including Kenya (Nzioka, 2024), Nigeria (Abubakar, 2024) and Zimbabwe (Mpofu, Sefotho & Maree, 2017), have more directly examined social integration and its psychosocial correlates, yet their findings cannot be assumed to generalise to the rural, culturally distinct context of northern Namibia. This gap in context-specific,

empirically grounded evidence on the level of social integration experienced by adolescents with special needs in northern Namibia motivated the present inquiry.

Objective of the Study

This article is coming from a broader mixed-methods thesis that examined the relationship between social integration and self-concept among adolescents with special needs in northern Namibia. It specifically addresses the first objective of that study: to assess the level of social integration among adolescents with special needs in northern Namibia.

Significance of the Study

Assessing the level of social integration among adolescents with special needs provides empirical evidence that can guide inclusive education policy, school-based psychosocial support programmes and teacher training in northern Namibia. The findings offer school administrators, counsellors and policymakers a contextual understanding of the extent to which adolescents with special needs feel supported by their families, significant others and peers and of the specific domains in which additional intervention may be required. The study also contributes to the limited body of African and Namibian literature that examines the lived psychosocial experiences, rather than only the structural and policy dimensions, of inclusive education for learners with disabilities.

Beyond its immediate contribution to inclusive education practice, an assessment of the level of social integration among adolescents with special needs also has broader relevance for mental health and social work practitioners working with this population. Adolescence is a developmental period in which peer affiliation, family connection and identity formation are especially salient (Erikson, 1968). Hence adolescents with special needs navigate these developmental tasks alongside the additional demands associated with disability, communication barriers and in many African settings, stigma rooted in cultural beliefs about the causes of disability. An accurate, empirically grounded picture of how well these adolescents are currently integrated into their family, peer and significant-other networks is therefore a necessary first step before more targeted psychosocial interventions. This includes school-based counselling, structured peer mentorship, or family support programmes which can be meaningfully designed and evaluated in the northern Namibian context.

LITERATURE REVIEW

Theoretical Framework

This study is rooted in Social Identity Theory, developed by Tajfel and Turner (1979), which posits that individuals derive part of their sense of self from the social groups to which they belong. That sense of belonging and acceptance within such groups contributes to positive identity and psychological well-being. Applied to adolescents with special needs, the theory suggests that meaningful membership in supportive family units, peer groups and school communities strengthens feelings of security, belonging and inclusion. Furthermore, exclusion from such groups can undermine identity development. Social Identity Theory therefore provides a useful lens for understanding why the quality of adolescents' relationships with family, friends and significant others, as assessed in this study, matters for their broader psychosocial adjustment.

Empirical Review

The concept of social integration refers to the extent to which adolescents with disabilities are accepted or included within peer groups, actively involved in educational settings, and able to participate in community life (Wang, Huang, Wang & Liu, 2023). Xia, Jing, Chen, Sun and Lu (2022) surveyed children and adolescents with disabilities in Shanghai and found that nearly 58% had little social interaction at home and in the community, attributing this to caregiver education, emotional stability at home and teachers' preparedness to embrace diversity. While the study accounted for several ecological factors influencing social inclusion, it was conducted in an urban Chinese setting that differs markedly from the rural northern Namibian context in terms of social support systems and educational opportunities.

In New Zealand, Walters (2022) conducted a qualitative exploratory study of meaning-making, identity construction and future aspirations among adolescents and young people with disabilities, finding that socially integrated adolescents reported improved self-concept, confidence and life satisfaction. Although the small qualitative sample limits generalisability and the well-resourced New Zealand setting differs from northern Namibia, the study highlights the agency and potential of adolescents with disabilities when supported by inclusive environments, in contrast to the more deficit-focused work of Xia et al. (2022).

In the United States, Wang, Huang, Wang and Liu (2023) found in a mixed-methods study that although students with disabilities in mainstream schools reported physical inclusion, many also experienced social isolation, a lack of friendships and exclusion from social activities, with poor social integration correlated with poor self-concept and internalised stigma. This finding illustrates that physical placement within an inclusive classroom does not, by itself, guarantee social integration, a concern equally pertinent to the northern Namibian schools examined in the present study.

Similar patterns are evident within Africa. In Kenya, Nzioka (2024) found that weak peer attachment and diminished family support were associated with poor identity development among disabled adolescent boys, although the male-only sample limits generalisability to female adolescents. In Nigeria, Abubakar (2024) used a qualitative approach to show that public perceptions of disability as a curse or punishment result in stigmatisation, exclusion and reduced opportunities for social interaction. Swartz (2023) and Brown and Swartz (2023) similarly found that poor infrastructure, inadequate teacher training, limited transport and low societal expectations in rural areas contribute to social isolation and lowered self-perceptions among adolescents with disabilities. In Zimbabwe, Mpofu, Sefotho and Maree (2017) found that a facilitative school and community environment strengthened autonomy, psychological well-being and social interaction among adolescents with physical disabilities, though the study did not extend to other disability types.

Within Namibia, Sheetheni (2021) discovered that inclusive education in the Oshana Region remained, to a considerable extent, symbolic despite the availability of political will, a finding with implications for learners' sense of belonging even though the study did not directly examine psychosocial outcomes. Nghole (2025) extended this discussion by showing that community-based social inclusion initiatives in Groot Aub and Windhoek Rural contributed positively to participation beyond the school environment, though the study did not examine whether increased participation translated into improved psychosocial outcomes such as self-concept. UNICEF (2021) similarly documented structural barriers such as long travelling distances, limited sign-language support and under-resourced classrooms, but adopted a largely descriptive, rights-based perspective that offers limited insight into adolescents' lived experiences of belonging and acceptance.

Taken together, the reviewed literature establishes that social integration promotes peer acceptance, participation and a sense of belonging among adolescents with disabilities, while structural barriers, inadequate resources and negative societal attitudes continue to constrain it across contexts. However, most Namibian studies have concentrated on policy implementation, educational access and structural barriers rather than on adolescents' own lived experiences of social integration.

Related evidence on the downstream consequences of social integration further underscores its importance. Yuan, Xie, Dong and Yang (2023), in a cross-lagged study of adolescents with visual impairment, found that perceived social support was linked over time to both self-esteem and social integration, suggesting a reinforcing relationship in which supportive relationships and psychosocial adjustment sustain one another. In Zimbabwe, Wasosa (2024) found only a modest association between social adaptation and self-concept among blind teenagers, indicating that a positive self-concept alone does not guarantee successful social integration.

In addition, the reverse pathway from social integration to self-concept deserves closer empirical attention, particularly outside urban and well-resourced settings. Chibaya, Govender and Naidoo (2021), examining the implementation of the UNCRPD from the perspective of persons with disabilities themselves, similarly cautioned that formal policy commitments to inclusion do not automatically translate into the everyday acceptance and participation that meaningful social integration requires.

Research Gap

Despite Namibia's formal commitment to inclusive education, empirical evidence linking adolescents with special needs' actual, lived experience of social integration as opposed to policy or infrastructural indicators remains limited. This is particular in the northern regions where most adolescents with special needs are concentrated and where cultural beliefs about disability remain influential. This study addresses that gap by directly assessing the level of social integration, across the domains of family, friends and significant others, as experienced and reported by adolescents with special needs themselves in northern Namibia.

METHODOLOGY

Research Design

The broader study from which this article is drawn adopted a mixed-methods research design, specifically a convergent parallel design, in which quantitative and qualitative data were collected concurrently, analysed separately and then merged at the interpretation stage (Creswell & Plano Clark, 2018). This design was well suited to the psychosocial variables of social integration and self-concept, which have both quantifiable and experiential dimensions. Quantitative data provided an objective measure of perceived social support, while qualitative data offered deeper insight into adolescents' lived experiences of family, peer and significant-other relationships. Methodological triangulation of this kind strengthens the credibility of findings (Fetters, Curry & Creswell, 2013).

Study Area

The study was conducted in Ongwediva town in the Oshana Region and Outapi town in the Omusati Region, northern Namibia, across four government-run schools comprising two special schools and two mainstream schools that enrol adolescents with disabilities. These schools were purposively selected because they were accessible and were key institutions implementing Namibia's inclusive education policy in the northern regions, serving adolescents with visual, hearing and physical impairments as well as learning difficulties. The northern region was of particular interest because cultural beliefs among the Owambo people, which associate disability with curses, sin or ancestral punishment, continue to stigmatise adolescents with disabilities and their families, potentially restricting their opportunities for social interaction and association with others (Amadhila et al., 2023).

Population and Sampling

The target population comprised all adolescents with special needs aged 10 to 19 years enrolled in the four selected schools, totalling 192 learners according to 2025 enrolment records (School A = 63, School B = 108, School C = 13, School D = 8). A census sampling technique was used for the quantitative component, in which all 192 eligible adolescents were included, eliminating sampling error and ensuring that the full range of characteristics within this relatively small and heterogeneous population was represented (Jamieson, Bonciani & Vainieri, 2022). For the qualitative component, six adolescents were purposively selected, with each of the four schools represented by at least one participant, in keeping with the principle of information adequacy applied in small, purposively selected qualitative samples (Cohen, Manion & Morrison, 2018).

Research Instrument

Social integration was measured using the Multidimensional Scale of Perceived Social Support (MSPSS), originally developed by Zimet, Dahlem, Zimet and Farley (1988) to assess perceived social support from three sources: family, friends and significant others. The 12-item scale, comprising four items per subscale, was administered using a seven-point Likert scale ranging from very strongly disagree (1) to very strongly agree (7), with higher scores indicating greater perceived social support and, by extension, higher social integration. Sample items include "My family really tries to help me," "I can count on my friends when things go wrong," and "There is a special person who is around me when I am in need." Complementary qualitative data were gathered through semi-structured interviews comprising ten open-ended questions covering demographic

background and experiences of social integration, each lasting approximately 30 to 45 minutes and audio-recorded with parental consent.

The MSPSS was selected for this study because of its established relevance to adolescent populations and its prior use in comparable studies of perceived social support among young people with disabilities elsewhere in the literature reviewed above, including Xia et al. (2022) and Yuan et al. (2023). Its three subscales namely family, friends and significant other map directly onto the domains of social relationship most salient during adolescence, a developmental stage in which peer affiliation, family connection and identity formation are especially central (Erikson, 1968). For adolescents with special needs, whose social opportunities may be curtailed by communication barriers, mobility challenges or stigma, this multidimensional structure allows the specific domain or domains in which support is weakest to be identified, rather than producing only a single undifferentiated score.

Reliability and Validity

The MSPSS has previously demonstrated Cronbach's alpha coefficients ranging from 0.85 to 0.91 across its total and subscales (Zimet et al., 1988), with alpha values of 0.70 and above considered adequate for internal consistency (Fraenkel, Wallen & Hyun, 2019). The instrument's internal consistency was re-assessed for this study through pilot testing with 20 adolescents. Content validity was strengthened by aligning questionnaire items with the study objectives and reviewed literature. Trustworthiness of the qualitative data was addressed through credibility, dependability and confirmability, including the use of an audit trail to document data collection and analysis procedures.

Data Analysis

Quantitative data were analysed descriptively in SPSS Version 29, generating frequencies, percentages, means and standard deviations for each MSPSS item and subscale, in order to determine the level of social integration among respondents across the domains of significant others, family and friends. In addition, independent-samples t-tests and a one-way ANOVA were conducted to determine whether MSPSS subscale scores varied significantly by gender, disability category or school type. Qualitative data from the interviews were transcribed and analysed thematically, with emergent themes compared against and integrated with, the quantitative results to provide a comprehensive, triangulated understanding of adolescents' social integration.

Ethical Considerations

Because the study involved a vulnerable population of adolescents with special needs, ethical clearance and institutional authorisation were obtained prior to data collection. Written parental or guardian consent and adolescent assent were secured for all participants. Participation in both the questionnaire and interview components was voluntary and confidential, with pseudonyms used in reporting to protect participants' identities.

RESULTS AND FINDINGS

Response Rate and Demographic Characteristics

All 192 administered questionnaires were completed and returned, yielding a 100% quantitative response rate and all six purposively selected adolescents took part in the interviews, yielding a 100% qualitative response rate. Respondents were predominantly middle and late adolescents: 39.6% were aged 16-17 years and a further 39.6% were aged 18-19 years, while 17.7% were aged 13-15 years and only 3.1% were aged 10-12 years. Female respondents comprised the largest proportion of the sample (55.2%), followed by male respondents (44.3%), with one respondent (0.5%) identifying as other. In terms of grade level, 44.8% of respondents were in grades 10-12, 37.0% in grades 7-9 and 18.2% in grades 4-6. Learners with learning difficulties formed the largest disability category (54.17%), followed by those with hearing impairment (25.52%) and visual impairment (20.31%). Regarding peer connectedness, 89.1% of respondents reported having at least one close friend at school, while 10.9% reported having none.

Regarding duration of enrolment, 36.5% of respondents had attended their current school for more than six years and 23.4% for one to three years, indicating a substantial base of longer-serving learners who had had time to establish friendships and become integrated into the school community. Furthermore, 33.3% had been enrolled for less than a year, representing a sizeable group of newer students still adjusting to their social environment. This demographic profile, a sample dominated by older, longer-enrolled adolescents with generally at least one close friend provides useful context for interpreting the MSPSS findings that follow, since longer school tenure and more advanced developmental stage are both conditions generally associated with greater opportunity for social integration.

Demographic Characteristics of Interview Participants

To enhance the transparency and transferability of the qualitative themes reported in this article, the demographic characteristics of the six purposively selected interview participants are summarised in Table 1a. Age, grade/level and duration at the current school were directly reported by participants during the interviews. Type of impairment is reported for the two Deaf, two blind and two participants with learning difficulties, who identified explicitly as such during the interviews.

Table 1a: Demographic Characteristics of Interview Participants

Participant	Age	Gender	Impairment type	Grade/Level	Duration at school	School type
P1	19	Male	Learning difficulty	Year One	1 year	Special
P2	10	Male	Visual impairment	Grade 10	1 year	Mainstream
P3	17	Female	Learning difficulty	Year One	1 year	Special
P4	15	Female	Visual impairment	Grade 11	2 years	Mainstream
P5	17	Male	Hearing impairment (Deaf)	Grade 9	10 years	Special
P6	18	Female	Hearing impairment (Deaf)	Grade 8	9 years	Special

Across the sample, participants' duration at their current school ranged from one to ten years, and their ages spanned early to late adolescence (10 to 19 years), providing perspectives from both newly enrolled learners and long-established members of their school communities. The participants (P5 and P6) were both enrolled at the same specialised school, where a shared sign-language environment shaped their reported experience of peer communication. The participants (P1 and P3) were also enrolled at the same special school, while participants (P2 and P4) were enrolled at the same mainstream school.

Social Integration with Significant Others

The study assessed social integration across three domains: significant others, family and friends, using the MSPSS. Table 1 presents the findings on social integration with significant others.

Table 1: Social Integration with Significant Others

Item	N	Mean	SD
There is a special person who is around me when I am in need	192	5.20	1.852
There is a special person with whom I can share my joys and sorrows	192	4.79	1.854
I have a special person who is a real source of comfort to me	192	4.77	1.890
There is a special person in my life who cares about my feelings	192	4.92	1.957

Respondents reported strong support from significant people in their lives, with the highest mean recorded for the statement "There is a special person who is around me when I am in need" (M = 5.20, SD = 1.85). Interview findings corroborated this, with participants describing teachers, hostel matrons and other trusted adults as accessible sources of guidance and comfort. One participant explained: "Teachers from my previous special school still help me, especially with practical tasks." (Respondent Interview, June 02, 2026).

Another participant highlighted a family member acting as a mentor: "My teacher brother helps me and even teaches me during holidays" (Respondent Interview, June 02, 2026), while a further participant noted, "When I feel stressed, I talk to the matron because she understands me and advises me" (Respondent Interview, June 03, 2026). These accounts suggest that significant others function as dependable, accessible sources of mentorship, advice and practical assistance that extend beyond formal classroom responsibilities, consistent with Xia et al. (2022) and Mpofu, Sefotho and Maree (2017), who found that supportive relationships with adults strengthen social participation among adolescents with disabilities.

Social Integration with Family

Table 2: Social Integration with Family

Item	N	Mean	SD
My family really tries to help me	192	5.67	1.971
I get the emotional help and support I need from my family	192	5.06	1.978
I can talk about my problems with my family	192	4.80	2.150
My family is willing to help me make decisions	192	5.13	1.981

Family support recorded the highest mean scores of the three MSPSS domains, with the statement "My family really tries to help me" recording the highest overall item mean in the entire scale (M = 5.67, SD = 1.97). Interview data reinforced this pattern, with participants consistently describing parents, siblings and extended family members as their primary source of emotional, material and educational support. One participant stated, "My family, especially my brothers and mother, help me the most" (Respondent Interview, June 02, 2026), while another explained, "My mum helps me a lot. She works hard and tries to meet my needs so that I can continue going to school" (Respondent Interview, June 04, 2026). These findings are consistent with Xia et al. (2022) and Nzioka (2024), who found that family support and emotional stability at home promote social participation and positive identity development among adolescents with disabilities.

Social Integration with Friends

Table 3: Social Integration with Friends

Item	N	Mean	SD
My friends really try to help me	192	5.18	1.989
I can count on my friends when things go wrong	192	4.60	1.845
I have friends with whom I can share my joys and sorrows	192	4.79	2.067
I can talk about my problems with my friends	192	4.31	2.232

Respondents also reported generally positive peer relationships, with the highest mean recorded for "My friends really try to help me" (M = 5.18, SD = 1.99). Notably, "I can talk about my problems with my friends" recorded the lowest mean of all twelve MSPSS items (M = 4.31, SD = 2.23), suggesting that some adolescents found it more difficult to discuss sensitive personal matters with peers than with family or significant others. Interview data illuminated this pattern: while participants described friends as sources of companionship and encouragement "I have my two friends. We support each other" (Respondent Interview, June 02, 2026) others voiced reservations about trust, with one participant explaining, "I have few friends because some people talk behind you" (Respondent Interview, June 03, 2026), and another noting, "I talk to many learners, but I do not have one very close friend" (Respondent Interview, June 04, 2026). These qualitative accounts help explain the comparatively lower mean recorded for sharing personal problems with friends, and align with Wang, Huang, Wang and Liu (2023), who found that some learners with disabilities continue to experience social isolation despite physical inclusion in mainstream settings.

Overall Level of Social Integration

Taken together, the mean scores recorded across the three domains of social integration were: family (M = 5.17), significant others (M = 4.92) and friends (M = 4.72), yielding an overall composite mean of approximately 4.94 on the seven-point MSPSS scale, against a scale midpoint of 4.00. This indicates that adolescents with special needs in northern Namibia experienced an overall high level of social integration, with family support emerging as the strongest source of perceived support, followed by significant others and finally, friends. Qualitative themes of social support networks, peer relationships, sense of belonging and participation in co-curricular activities such as sports, choir, dancing and student leadership further reinforced this overall picture, while also surfacing pockets of difficulty related to trust among peers and feelings of exclusion in certain situations.

Inferential Statistical Analysis of MSPSS Subscale Scores

To determine whether MSPSS subscale scores varied significantly by gender, disability category or school type, independent-samples t-tests (gender, school type) and a one-way ANOVA (disability category) were conducted in addition to the descriptive analysis reported above. Levene's test indicated homogeneity of variance across all comparisons ($p > .05$), so pooled-variance tests were used throughout.

Table 4: MSPSS Subscale Scores by Gender (Independent-Samples t-Test)

Subscale	Male (n=85) M (SD)	Female (n=106) M (SD)	t(189)	p	Cohen's d
Significant Others	4.94 (1.32)	4.90 (1.28)	0.21	.832	0.03

Family	5.31 (1.41)	5.08 (1.52)	1.08	.282	0.16
Friends	4.91 (1.42)	4.56 (1.40)	1.73	.085	0.25
Overall MSPSS	5.05 (1.16)	4.85 (1.12)	1.26	.210	0.18

No statistically significant gender differences emerged on any subscale, although the difference on the Friends subscale approached significance (p = .085), with male respondents reporting marginally higher perceived friend support than female respondents. One respondent who identified as "other" gender was excluded from this comparison because a group of one does not permit a meaningful variance estimate.

Table 5: MSPSS Subscale Scores by Disability Category (One-Way ANOVA)

Subscale	**Visual (n=39) M (SD)**	**Hearing (n=49) M (SD)**	**Learning (n=104) M (SD)**	**F(2,189)**	**p**
Significant Others	5.18 (1.41)	5.10 (0.99)	4.74 (1.35)	2.36	.097
Family	5.41 (1.52)	4.87 (1.06)	5.21 (1.62)	1.55	.215
Friends	4.62 (1.48)	5.09 (1.05)	4.58 (1.52)	2.25	.108
Overall MSPSS	5.07 (1.27)	5.02 (0.80)	4.84 (1.22)	0.75	.476

No statistically significant differences by disability category were found, although the difference on the Significant Others subscale approached significance (p = .097), with learners with learning difficulties reporting somewhat lower scores than their visually or hearing-impaired peers. No respondents in the census sample reported physical or intellectual impairment, so these categories could not be included in the comparison.

Table 6: MSPSS Subscale Scores by School Type (Independent-Samples t-Test)

Subscale	**Special (n=171) M (SD)**	**Mainstream (n=21) M (SD)**	**t(190)**	**p**	**Cohen's d**
Significant Others	4.96 (1.29)	4.62 (1.27)	1.13	.260	0.26
Family	5.12 (1.48)	5.50 (1.51)	-1.10	.274	-0.25
Friends	4.74 (1.43)	4.60 (1.31)	0.43	.669	0.10
Overall MSPSS	4.94 (1.17)	4.90 (0.93)	0.13	.898	0.03

No statistically significant differences by school type were found. School type was derived from the known enrolment sequence of the four participating schools (School A and School B, the two special schools, n = 171; School C and School D, the two mainstream schools, n = 21), as the dataset did not include a directly coded school-identifier variable; this grouping should therefore be treated as indicative, and the pronounced imbalance in group sizes (171 versus 21) further limits the power of this particular comparison. Overall, the absence of statistically significant differences by gender, disability category or school type suggests that the high level of social integration identified in this study, and the specific domain-level pattern of stronger family

support relative to peer support, was broadly consistent across these subgroups rather than being concentrated in any one segment of the sample.

DISCUSSION OF FINDINGS

The finding that adolescents with special needs in northern Namibia report an overall high level of social integration, anchored primarily in strong family support, both extends and departs from prior literature. It departs from studies such as Xia et al. (2022) in Shanghai, where nearly 58% of children and adolescents with disabilities reported limited social interaction at home and in the community, and from Wang, Huang, Wang and Liu (2023), whose U.S. participants frequently reported social isolation despite mainstream placement. In the present study, by contrast, family emerged as a particularly robust source of support, a pattern that resonates with the collectivist, extended-family structures documented in other African contexts. This includes Nzioka (2024) Kenyan findings that strong family attachment is associated with more positive identity outcomes, and Mpofu, Sefotho and Maree (2017) observation that a facilitative family and community environment strengthens psychological well-being among adolescents with physical disabilities in Zimbabwe.

At the same time, the comparatively lower mean recorded for peer relationships, and specifically for adolescents willingness to discuss personal problems with friends, echoes concerns raised by Swartz (2023) and Brown and Swartz (2023) regarding trust and confidentiality among peers with disabilities in under-resourced settings, and by Abubakar (2024) regarding the stigmatising societal attitudes toward disability that can constrain the depth of peer relationships even where broader inclusion is reported. Through the lens of Social Identity Theory, these findings suggest that adolescents with special needs in northern Namibia derive a strong sense of belonging primarily from their membership in family and, to a slightly lesser extent, school-based significant-other networks, while their identification with the broader peer group remains comparatively more fragile and uneven.

Communication barriers merit explicit consideration alongside disability category. Although hearing-impaired learners might be expected to face the greatest constraints on peer integration, the Friends subscale mean for this subgroup (M = 5.09) was numerically the highest among the three disability categories represented in the sample, and qualitative accounts from the two Deaf interview participants describe communication becoming markedly easier, not harder, within the school environment. Both learners attended a specialised, Deaf-inclusive school in which sign language was used among peers and staff, and written communication supplemented sign for those unfamiliar with it: “Those who are signing, I’m signing together. Those who do not understand sign, again, we write, we communicate... it has made my life better because of communication” (Respondent Interview, P6). This pattern suggests that the effect of communication barriers on peer integration may be moderated less by disability type per se than by whether the school environment itself provides an accessible, shared mode of communication. Where such infrastructure is absent as UNICEF (2021) notes is common across Namibian schools generally, citing limited sign-language support and under-resourced classrooms, hearing-impaired learners in ordinary mainstream settings without trained staff or a critical mass of signing peers may face substantially greater isolation than is reflected in the present sample, which was drawn partly from a school with established Deaf-inclusive practice. This points to a policy-relevant distinction between disability category and communication accessibility as separate, only partially overlapping, drivers of peer-group integration among adolescents with special needs.

These findings also extend the existing body of Namibian literature. Where Sheetheni (2021) and Nghole (2025) focused respectively on the symbolic implementation of inclusive education policy and community-based social inclusion initiatives, the present study provides direct, adolescent-reported evidence of the level of social integration experienced within family, significant-other and peer domains specifically among adolescents with special needs in the northern regions. In doing so, it addresses the empirical and contextual gap identified in the literature review, namely the paucity of Namibian evidence on adolescents own lived experience of social integration, as distinct from policy or structural indicators of inclusion (UNICEF, 2021).

It is also worth noting a limitation that tempers these conclusions: the study’s cross-sectional design captures adolescents’ perceived social integration at a single point in time, and cannot establish whether the observed strength of family support and comparative weakness of peer support are stable features of adolescents with

special needs' social experience in northern Namibia or reflect the particular circumstances of the schools and cohort sampled. Nonetheless, the convergence of quantitative MSPSS scores with independently analysed qualitative interview themes across all three domains lends confidence to the overall pattern of findings reported here.

CONCLUSION AND RECOMMENDATIONS

This article set out to assess the level of social integration among adolescents with special needs in northern Namibia. The findings show that these adolescents generally experience a high level of social integration, with an overall composite MSPSS mean of 4.94 on a seven-point scale, and that family support constitutes the strongest domain of perceived support, followed by support from significant others such as teachers and hostel matrons, and then by peer relationships. Qualitative accounts of mentorship, emotional support, companionship and participation in co-curricular activities corroborate and enrich this quantitative picture, while also revealing that a meaningful minority of adolescents continue to experience limited trust among peers, difficulty forming close friendships and occasional feelings of exclusion.

These findings carry practical significance for inclusive education in northern Namibia. They suggest that the family, rather than the school-based peer group, currently functions as the primary anchor of social integration for adolescents with special needs, and that interventions aimed at strengthening these adolescents' overall psychosocial adjustment should build on, rather than bypass, this existing family strength. At the same time, the comparatively weaker and more uneven peer domain indicates that physical placement in special or mainstream schools, on its own, is insufficient to guarantee the kind of deep, trust-based peer relationships associated with positive identity development in the literature reviewed. Addressing this gap will require deliberate, structured intervention at the school level rather than an assumption that inclusion in an ordinary or special classroom setting will, by itself, produce social integration.

Based on these findings, the study recommends that schools in northern Namibia strengthen structured peer-support and mentorship programmes that deliberately create opportunities for adolescents with special needs to build trust and deeper friendships with peers, complementing the strong family support base that already exists. School counsellors and teachers should also be equipped to identify and support the minority of learners who report weak peer connectedness or feelings of exclusion. Besides, community and family-based interventions should continue to be encouraged given the central role family support plays in these adolescents' social integration. Future research should build on this assessment by examining, at a national level, how the level of social integration identified here relates to broader psychosocial outcomes such as self-concept, resilience and academic engagement among adolescents with special needs.

The comparatively low mean recorded for "I can talk about my problems with my friends" ($M = 4.31$, $SD = 2.23$) - the lowest of all twelve MSPSS items - points to a specific, actionable gap rather than a general weakness in peer relations, since companionship and mutual support were otherwise well reported. In the rural northern Namibian context, where the schools in this study already operate hostel systems and rely on matrons and teachers as informal mentors, this existing infrastructure offers a low-cost route to strengthening peer trust specifically.

Structured, cross-grade peer-mentorship pairings linking longer-enrolled learners, more than a third of whom had attended their school for over six years, with newer or younger peers could formalise the kind of informal support already described by participants such as "I have my two friends... we support each other" (Respondent Interview, June 02, 2026). Embedding mentorship activities within existing, already-valued co-curricular structures such as choir, sports and hostel life, rather than creating new stand-alone programmes, would reduce implementation cost and align with learners' existing participation patterns.

School counsellors could additionally train a small cohort of peer mentors in basic confidentiality and active-listening skills, directly targeting the trust deficit "I have few friends because some people talk behind you" (Respondent Interview, June 03, 2026) that participants identified as the barrier to deeper friendship, rather than assuming that physical proximity in class or hostel will produce trust on its own.

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