Research Article

Using GPS and Self-Report Data to Examine the Relationship Between Community Mobility and Community Participation Among Autistic Young Adults

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Importance: Community participation of autistic adults is important for health and well-being. Many clinical efforts and interventions aim to enhance community participation in this population.

Objective: To empirically examine the relationship between community participation and community mobility.

Design: A randomized controlled trial using data from baseline and 4- to 6-wk follow-up.

Setting: Community organizations serving autistic adults in Philadelphia.

Participants: Sixty-three autistic young adults with data on community mobility and participation from a prior study on public transportation use.

Outcomes and Measures: Participants were tracked with GPS-enabled cell phones over a 2-wk period. A spatiotemporal data mining algorithm was used to compute the total number of destinations, nonhome destinations, unique destinations, percentage of time spent outside the home, and median daily activity space area from the GPS data. The Temple University Community Participation measure was used to collect self-report data in 21 different areas, and total amount, breadth, and sufficiency of participation were calculated.

Results: Moderate and statistically significant associations were found between community mobility and participation variables at baseline and follow-up. However, changes in community mobility were not related to changes in community participation.

Conclusion: Health policymakers and providers should consider community mobility as a factor that can affect community participation in autistic individuals.

Plain-Language Summary: Lower levels of community participation among autistic young adults affect health outcomes and overall quality of life. Community mobility is often a barrier to community participation. An understanding of the relationship between community mobility and community participation can lead to occupational therapists tailoring specific interventions and policies that support autistic young adults to engage in important life activities within the community.

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Community participation refers to one's natural engagements with others in various community-based contexts in domains such as domestic life, interpersonal life, and major life activities, consisting of education, employment, and community, civic, and social life (World Health Organization, 2001). Recent studies have shown that autistic adults are less likely to engage in their communities compared with members of the general population (Brown et al., 2022; Myers et al., 2015; Song et al., 2022). This is especially true for autistic young adults, who have lower participation in social, recreational, leisure, and community activities

than their typically developing peers (Brown et al., 2022; Egilson et al., 2017; Shattuck et al., 2011) as well as their peers with other disabilities (Askari et al., 2015; Orsmond et al., 2013; Tint et al., 2017). Because lower levels of community participation among autistic adults are associated with poor health outcomes and decreased quality of life (Billstedt et al., 2011; Bishop-Fitzpatrick et al., 2017), understanding the factors that can increase community participation is of great importance.

The ability to travel and move around in one's community, typically referred to as *community mobility,* is a plausible prerequisite for community participation (Brusilovskiy, Klein, et al., 2020; Gattinger et al., 2017; Poole et al., 2018), such as employment, social, educational, and recreational opportunities (Friedman & Rizzolo, 2016; Newman et al., 2011; Wasfi et al., 2017). However, autistic young adults report consistent barriers to independent community mobility (Davies et al., 2010; Haveman et al., 2013; Pfeiffer et al., 2020; Price et al., 2017), which may be partly due to the symptoms and behaviors associated with autism spectrum disorder (ASD; Precin et al., 2012), as well as numerous environmental barriers.

Community mobility involves planning and moving around in the community using public or private transportation, such as driving, walking, biking, or taking public transportation (American Occupational Therapy Association [AOTA], 2020). Autistic individuals often rely on their caretakers for community mobility (Deka et al., 2016). Furthermore, they are less likely to drive or use a car and have less accessibility to public transport for meeting their community mobility needs (Kersten et al., 2020b; Wilson et al., 2021). There has been increased interest in enhancing community mobility of autistic adults through interventions that teach and empower them to independently use public transit to get around and to participate in activities that would otherwise not be available (Pfeiffer et al., 2022; Simões et al., 2018), but these interventions are rare and infrequently implemented. However, greater access to public transit among autistic adults has been shown to be associated with better quality of life (Wilson et al., 2021), greater ability to attend medical appointments that are essential for health and well-being (Deka et al., 2016), and more opportunities for community participation such as shopping and recreational and social activities (Deka et al., 2016; Falkmer et al., 2015; Feeley et al., 2015; Haas et al., 2020; Lubin & Feeley, 2016; Wasfi et al., 2017).

Community mobility has generally been assessed with self-report or caretaker-report measures or in-depth interviews to evaluate modes of transportation (Deka et al., 2016; Kersten et al., 2020a; Wilson et al., 2021). Multiple studies have started to rely on GPS to measure different indicators of community mobility in various populations (Brusilovskiy et al., 2016; Brusilovskiy, Klein, et al., 2020; Pfeiffer et al., 2022), including autistic individuals (Bagatell et al., 2022; Chan et al., 2021; Little & Irvin, 2018; Little et al., 2019; Pfeiffer et al., 2022). Several mobility-related constructs can be computed using GPS data, including destinations (e.g., number of destinations visited, number of nonhome destinations, number of unique destinations), temporal scope of mobility (e.g., time spent outside the home), and geographical scope of mobility (e.g., area of the median daily activity space, which is the area an individual covers in their daily travels; Brusilovskiy et al., 2016; Brusilovskiy, Klein, et al., 2020). Each of these constructs may be important in understanding autistic adults' community participation. For instance, their ability to access more destinations may be associated with environmental novelty that enhances their interest in the community and helps them identify more participation in welcoming and supportive environments (Krieger et al., 2021). More destinations can also increase exposure to social situations and interactions, which can help autistic adults develop the social skills and greater independence in community settings necessary for participation in numerous areas (Cameron et al., 2022; Tobin et al., 2014). In addition, access to more destinations may foster a greater sense of belonging and connection to the community needed to increase an individual's comfort with active community participation (Cameron et al., 2022; Weaver et al., 2021). Furthermore, spending more time outside the house may lead to greater familiarity with the community and increased opportunities for social interaction. Having a larger activity space may also lead to greater awareness of community resources such as parks, libraries, museums, and community centers that, in turn, could result in higher levels of community participation. However, the current research that demonstrates the utility of these constructs in this population is limited.

Objectives

The purpose of this study was to use several mobility constructs calculated from GPS data, including the total number of destinations, number of nonhome destinations, number of unique destinations, percentage of time spent outside the home, and the median daily activity space area, as well as self-report participation data from a sample of 63 autistic young adults, to address the following research questions:

Research Question 1: What are the associations between various aspects of community mobility and community participation among autistic young adults?

Research Question 2: Are these relationships stable across multiple time points?

Research Question 3: Are changes in various indicators of community mobility associated with changes in various aspects of community participation?

Method

Procedures

For the current study, we used a correlational design to analyze secondary data that were originally collected

for an intervention study that aimed to enhance independent transportation skills of autistic young adults. Participants for the original intervention study (Pfeiffer et al., 2024) were recruited through local community organizations serving autistic adults between March 2019 and March 2021 . Information about the study and contact information for the principal investigators were provided to the staff at the community organizations to pass on to clients. The research staff of the original study also used personal and professional social media resources to share information about the study. Interested individuals then contacted the principal investigators and were screened for the study. Inclusion criteria were (1) a self-reported ASD diagnosis confirmed by the Ritvo Autism Asperger Diagnostic Scale–Revised score (if a participant scored lower than 65, medical or school documentation was collected); (2) a satisfactory score on the Transportation Pre-Screening Assessment that identified that participants were safe to learn to travel either independently or with supervision; and (3) ages 18 yr or older. Although there was no upper age limit, most participants were in their early to mid-20s (interquartile range = 20–25 yr), and the oldest participant was 35.

After the informed consent process, participants were asked to complete an interview that included several measures on demographics, self-efficacy, and previous transportation skills and experience. Participants also received an Android phone that had GPS tracking software installed and were instructed on the basic functions of the phone. Because GPS data were collected and sent to a server in real time, the research staff were able to monitor the data collection, identify any issues with tracking, and address these issues with participants as soon as they occurred. Upon the conclusion of GPS tracking, participants received a $40 honorarium when they returned the cell phone and charger. GPS and interview data were collected again at 4–6 wk postbaseline. Institutional review board approval for this study was obtained from Temple University.

Participants

Of the 83 participants in the original intervention study, 8 were excluded from the current study because of the initial impact of the COVID-19 pandemic in March 2020 on data collection and recruitment, which were halted between March 2020 and July 2020. Eight more individuals who participated in the intervention study were excluded because of missing GPS data (described later), and 4 more were excluded because of missing community participation data. The final sample for the current study was 63 individuals. Of those, 54 had data at both baseline and follow-up, making this our sample size for Research Question 3.

Measures

GPS Data

The location and movement data for the participants were collected through the AccuTracking (https://secure.accutracking.com/) mobile app, which had been used in several published studies (Brusilovskiy et al., 2016; Brusilovskiy, Klein, et al., 2020; McCormick et al., 2022; Pfeiffer et al., 2022; Townley et al., 2022; Zhou et al., 2004, 2005). The app tracked latitude and longitude of the participants' phone at 1-min intervals. Location data were transferred in real time to the secure AccuTracking online database when cellular coverage was available; otherwise, location data were cached on the phone and transferred at a later time.

The phone's location was recorded every minute for 14 full days, and the total number of points that could be obtained was 1 record/min × 1,440 min in a 24-hr period × 14 24-hr periods = 20,160 records. Because of satellite, receiver, multipath, and other errors that might sometimes occur with data collection, GPS tracking can often result in a substantial amount of missing data; thus, thorough data cleaning, including deduplication, removal of outliers, and linear interpolation, was necessary before creating the relevant constructs. First, we removed duplicate GPS points recorded within the same minute to avoid data redundancy. Second, we removed outliers, such as points that were temporally close but spatially far apart, which could indicate GPS signal issues. Finally, we imputed missing data by estimating the locations of up to 19 new points between two consecutive points if they were close in time and space, using linear interpolation of latitude and longitude values. These data cleaning steps were essential to prepare the GPS data for further analysis. Detailed descriptions of these steps are provided elsewhere (Brusilovskiy et al., 2016; Brusilovskiy, Klein, et al., 2020).

After the data cleaning, we used a spatiotemporal data mining algorithm, ST-DBSCAN (Birant & Kut, 2007), to identify destinations from GPS data using a custom R program (Brusilovskiy, Jaraha, et al., 2020). The algorithm had three parameters: *eps1* (spatial distance), *eps2* (temporal distance), and *minpts* (minimum number of points necessary to form a cluster). Consistent with earlier studies (Brusilovskiy et al., 2016; Brusilovskiy, Klein, et al., 2020; McCormick et al., 2022; Pfeiffer et al., 2022; Townley et al., 2022), we set the values of these parameters to 200 m, 20 min, and 10 points, respectively. Roughly speaking, this meant that when there were at least 10 points that were within 200 m and 20 min of each other, the individual was in a cluster or at a destination. Points that did not fall into a cluster were outliers and considered to be transit points. A supplemental algorithm (see Brusilovskiy et al., 2016; Brusilovskiy, Klein, et al., 2020) that could modify clusters identified by ST-DBSCAN and create new ones in the presence of missing data was also implemented in this study. This algorithm focused on several scenarios, including cases in which consecutive transit points were separated by a short time interval but not initially clustered together. It also outlined scenarios in which existing clusters were merged with transit points or with each other, primarily for more accurate

calculation of temporal variables. This approach aimed to improve the identification of destinations and the analysis of participants' movements during the study period.

In addition, we calculated the number of *nonhome destinations,* defined as destination clusters whose centroids were more than 200 m away from the participant's geocoded home address. Furthermore, we calculated the number of unique destinations, defined as the total number of distinct destinations the participant went to at least once. The percentage of time each participant spent outside the home was also computed. Last, we calculated the median daily activity space area, which used data from each day of tracking that had at least 12 hr (50%) of data points after imputation. The *activity space* was defined as the minimum convex polygon around all the participant's GPS points for a specific day. As in other studies (Brusilovskiy et al., 2016; Brusilovskiy, Klein, et al., 2020; McCormick et al., 2022; Townley et al., 2022), data were used if the participant had at least 50% of data (10,080 min) after all the data cleaning and imputation procedures. On average, participants included in the analyses had 16,637 nonmissing minutes at baseline (SD = 2,354 min) and 16,750 nonmissing minutes at follow-up (SD = 2,472 min).

Community Participation

The Temple University Community Participation (TUCP) measure (Salzer et al., 2014, 2015) asks participants to indicate how many days in the past 30 they have participated in 21 different areas (e.g., going to a restaurant or coffee shop, going to a place of worship), whether they viewed their participation in each area as important ("yes" or "no"), and the extent to which they participated in it as much as they would want (measured as "not enough," "enough," or "too much"). The TUCP measure has good test–retest and intermethod reliability and validity (Burns-Lynch et al., 2016; Salzer et al., 2014, 2015) and has been used extensively in studies with the autistic population (Song et al., 2021, 2022). We used the measure to assess (1) the amount of participation, calculated as the total number of participation days across all 21 areas (ranging from 0 to 21 × 30 = 630); (2) the importance of participation, calculated as the total number of participation areas that the individual indicated as important to them (ranging from 0 to 21); (3) the breadth ratio of participation, calculated as the percentage of the important participation areas that had at least 1 day of participation in the past 30 days (ranging from 0% to 100%); and (4) the sufficiency of participation, calculated as the percentage of important areas in which participation was rated as "enough" (ranging from 0% to 100%).

Data Analysis

For Research Question 1, we used Pearson and Spearman correlations to examine the relationships between various measures of community mobility and the amount, breadth ratio, and sufficiency of community participation at both baseline and follow-up. For Research Question 2, we used Fisher's r-to-z transformations to compare the correlations at the two time points. We also used Pearson and Spearman correlations to examine the relationships between over-time changes in community mobility and over-time changes in community participation to answer Research Question 3. Significant associations between change scores in community mobility and community participation can provide valuable insights into the potential long-term impacts of interventions or changes in mobility-related factors on the community participation of autistic young adults.

Results

Baseline Characteristics

The average age of the participants was 21.69 yr (SD = 2.82). The sample was predominantly male (n = 51; 81%), with 11 (17%) identifying as female and 1 (2%) identifying as another gender. Twenty-three (37%) participants were White, 29 (46%) were Black or African American, 2 (3%) were Asian or Pacific Islander, 3 (5%) were Hispanic or Latino, 1 (2%) was Native American, 4 (6%) were multiracial, and 1 (2%) was of another race or ethnicity. Most participants (n = 42; 67%) lived in a major urban area (population over 100,000), 17 (27%) lived in a suburban area (population between 20,000 and 100,000), and 4 (6%) lived in a small town (population between 3,000 and 20,000). Most participants (n = 55; 87%) completed high school or less, 5 (8%) had at least 1 year of college or technical training, and 3 (5%) graduated from college or university. Thirty-eight participants (60%) had a diagnosis of autistic disorder, 8 (13%) were diagnosed with Asperger disorder (American Psychiatric Association, 1994), 10 (16%) had a diagnosis of pervasive developmental disorder not otherwise specified (American Psychiatric Association, 1994), and 7 (11%) were not sure what their specific autism diagnosis was.

At baseline, the average amount of participation—or the days of participation in the 21 areas—was 46.40 days (SD = 33.54), and the average breadth ratio of participation was 0.52 (SD = 0.28), indicating that the individuals participated at least once in 52% of areas they rated as important to them. They had sufficient participation in approximately half of the areas they considered important (M = 0.48, SD = 0.29). The mean number of destinations visited over the course of the initial tracking period was 43.03 (SD = 24.00); of those, 22.63 (SD = 20.28) were nonhome destinations. The mean number of unique destinations was 11.37 (SD = 8.20). Participants spent 17% (SD = 18%) of their time outside the home, which corresponded to 2,800.90 min (SD = 2,979.77), or 46.68 hr. The mean size of the median daily activity space area was 10.05 km^2 (SD = 21.31). The large standard

deviations of these variables indicate that there is substantial variability in community mobility across participants and are consistent with standard deviations in other studies that used these measures (Brusilovskiy et al., 2016; Brusilovskiy, Klein, et al., 2020; McCormick et al., 2022; Townley et al., 2022).

Relationship Between Community Mobility and Community Participation

In all our analyses, Pearson and Spearman correlations yielded very similar results despite the nonnormal distributions of the variables, so we present the Pearson correlations in the current study. Table 1 presents the results that address Research Questions 1 and 2. The table shows the Pearson correlations between the amount, breadth ratio, and sufficiency of community participation and various aspects of community mobility at baseline and at follow-up. It also shows the *p* values from Fisher's *r*-to-*z* transformations comparing these correlations at the two time points. At baseline, the total amount of participation was significantly associated with all measures of community mobility and in particular with the destination variables. These correlations were similar at follow-up, with the Fisher's *r*-to-*z* transformations showing no significant differences between corresponding correlations at the two points. However, at follow-up, the association between amount of participation and percentage of time spent outside the house was no longer significant ($r = .19$, $p = .1683$). At both points, breadth ratio of participation was significantly associated with all community mobility measures except median daily activity space area, for which the association is at the threshold of significance ($r = .24$, $p = .0533$, at baseline and $r = .26$, $p = .0530$, at follow-up). However, sufficiency of participation had small but significant associations with the destination variables but was not related to the variables measuring the temporal or geographical scopes of mobility at baseline. At follow-up, these associations seemed to increase, with the correlation between the percentage of time spent outside of the house becoming significant ($r = .38$, $p = .0051$). However, once again, Fisher's *r*-to-*z* transformations did not show any statistically significant differences between the baseline and follow-up correlation coefficients.

In our analyses for Research Question 3, we found no statistically significant associations between over-time changes in any of the community participation measures and over-time changes in any of the community mobility measures. The results are presented in Table 2.

Table 1. Pearson Correlations Between Community Mobility and Community Participation at Baseline ($N = 63$) and Follow-Up ($N = 54$)

Variable	Amount of Participation			Breadth Ratio of Participation			Sufficiency of Participation		
	r		Fisher's *r*-to-*z* *p* Value	*r*		Fisher's *r*-to-*z* *p* value	*r*		Fisher's *r*-to-*z* *p* Value
	Baseline	Follow-Up		Fisher's *r*-to-*z* *p* value	Follow-Up		Baseline	Follow-Up	
Total no. of destinations	.48***	.43**	.7642	.50***	.59***	.5353	.27*	.47***	.2077
No. of nonhome destinations	.53***	.43**	.4902	.48***	.62***	.2937	.27*	.49***	.1676
No. of unique destinations	.50***	.45***	.7490	.45***	.58***	.3681	.28*	.45***	.3030
% time spent outside the home	.35**	.19	.3524	.35**	.47***	.4593	.16	.38**	.2225
Median daily activity space area	.33**	.42**	.5892	.24	.26	.9124	.14	.25	.5687

*$p < .05$. **$p < .01$. ***$p < .001$.

Discussion

To our knowledge, this is the first study among autistic adults that empirically demonstrates that spending more time outside the home, going to more destinations, and

Table 2. Pearson Correlations Between Over-Time Changes in Community Mobility and Community Participation

Variable	Amount of Participation	Breadth Ratio of Participation	Sufficiency of Participation
Total no. of destinations	.00	.11	−.06
No. of nonhome destinations	−.05	.07	−.04
No. of unique destinations	−.09	.14	.19
% time spent outside the home	−.15	.02	−.02
Median daily activity space area	.06	.10	.10

having a bigger area in which to travel are moderately associated with more participation in the community.

For Research Question 1, we found that amount of participation (the total number of participation days) and breadth ratio of participation (percentage of important participation areas with at least 1 day of participation) were associated with the different measures of community mobility. There are several possible reasons for this finding. First, visiting more destinations and spending more time out of the house can provide greater opportunities for an autistic person to participate in community activities and events. Second, community mobility can help an autistic person to expand their social network and make connections with others in the community, which in turn can increase their opportunities for community participation (Cameron et al., 2022; Tobin et al., 2014). Third, visiting different destinations can expose an autistic person to new activities and hobbies, which can increase their interest in participating in community activities. Fourth, higher levels of community mobility can increase an autistic person's sense of belonging in the community, leading to increased motivation to participate in the community (Cameron et al., 2022; Weaver et al., 2021). Sufficiency of participation (percentage of important areas in which participation was rated as "enough") was also associated with community mobility and in particular with destinations. Although these associations were somewhat lower at baseline than at follow-up, the differences between baseline and follow-up correlation coefficients were not statistically significant.

Among all aspects of community mobility, median daily activity space area, which measures the geographical area that an individual traverses, seemed to have the lowest association with breadth and sufficiency of community participation. This could be because activity space does not necessarily capture the variety of activities an individual engages in within the space or an individual's perceived satisfaction with their level of participation in these activities. For instance, an individual may have a large activity space but not find the amount of participation in any of the activities there to be sufficient. Conversely, an individual may have a small activity space but still be highly involved in and satisfied with their level of community participation within that space.

We also explored whether the relationships between various aspects of community mobility and participation remained stable over time. Although several associations were significant at one time point but not at the other (i.e., the associations between amount and sufficiency of community participation and the percentage of time spent outside the house), Fisher's r-to-z transformations showed that the correlations between the measures did not differ significantly at the two time points. In other words, the association between community mobility and community participation appears to be stable and not affected by changes in time or other factors that may influence the relationship. This consistency can be seen as a positive finding, because it suggests that community mobility is consistently important for community participation among autistic adults. However, it is important to note that a stable correlation does not necessarily imply causality, and further research is needed to understand the underlying mechanisms of the relationship between community mobility and community participation among autistic adults.

Another finding was that over-time changes in the amount, breadth ratio, or sufficiency of community participation were not associated with over-time changes in any aspect of community mobility. This suggests that the relationship between community mobility and community participation may not be captured by a simple correlation analysis because of their complexities. Additional studies with larger samples are needed to explore these relationships, which may be influenced by multiple other factors over time. Furthermore, the point-in-time associations observed in this study, although significant and stable, may not be strong enough to detect an association between the over-time changes in the two measures. This could be due to measurement error, small sample size, or the influence of other variables that were not controlled for, such as the COVID-19 pandemic, which resulted in closures and restrictions in community mobility and participation (e.g., Pfeiffer et al., 2022) during the time of the study. However, these findings do indicate that any interventions attempting to enhance community mobility may not result in immediate increases in amount and breadth ratio of community participation.

Thus, rather than focusing solely on improving one aspect of community participation or mobility, interventions may need to consider a range of factors that could affect both community mobility and participation. This could include addressing (1) social barriers, such as improving social support or mitigating

communication difficulties; (2) environmental barriers, such as improving access to resources or dealing with stigma and discrimination; and (3) physical barriers, such as improving access to transportation or tackling mobility challenges. For instance, few autistic individuals have a driver's license (Chee et al., 2015; Deka et al., 2016; Falkmer et al., 2015), and most also do not walk independently outside their homes (Deka et al., 2016). In many instances, parents become their adult children's primary transportation providers, which often has negative financial and emotional implications for the parents (Deka et al., 2016; Lubin & Feeley, 2016). And although some studies have found that autistic individuals use public transportation at least as much as members of the general population (Brown et al., 2022; Lindsay, 2017; Song et al., 2022), they face multiple hurdles, including lack of familiarity, lack of appropriate transit options, costs, and safety issues (Deka et al., 2016; Lindsay, 2017; Lubin & Feeley, 2016). Therefore, programs that focus on enhancing community mobility, such as by providing appropriate transportation skills training and reducing public transit fares for individuals with various health conditions who live in poverty, should become more widely available. Furthermore, because the autism diagnosis results in a large financial burden for families (Parish et al., 2015; Saunders et al., 2015), it is also important to address the financial aspects of people's ability to use public transportation or to engage in activities that require some degree of discretionary funds.

Limitations

This study has several limitations. First, because this is a correlational study, the directionality of the relationship between community mobility and community participation cannot be established with certainty. However, as mentioned earlier, the results are consistent with prior research that suggests that community mobility may be a precondition for engaging in community participation. Therefore, it may be reasonable to assume that enhanced community mobility leads to greater community participation and not the other way around. Second, GPS data come with ample amounts of missing data, an issue that is rarely reported in the published literature (Brusilovskiy et al., 2016). However, the approaches for imputing missing data and creating various community mobility constructs that are used in our study have been successfully used in several other studies (Brusilovskiy et al., 2016; Brusilovskiy, Klein, et al., 2020; McCormick et al., 2022; Townley et al., 2022), including one study on autistic individuals (Pfeiffer et al., 2022). Third, the TUCP measure asks individuals about their participation over the past 30 days, whereas the mobility measures track individuals over the course of 2 wk. Had the time periods been identical, we might have found stronger associations between the examined constructs, especially when looking at correlations between changes over time. Finally, our sample was a predominantly urban sample living in areas with a high density of various community amenities; thus, further research is needed to examine how the relationships between the different aspects of community mobility and participation might differ in suburban or rural locations.

Implications for Occupational Therapy Practice

This study has significant implications for occupational therapists working with autistic young adults. By recognizing the significant association between community mobility and community participation, occupational therapists can tailor specific interventions such as the following to enhance this population's community mobility and independent travel skills.

- Occupational therapists can address barriers that affect this population's community mobility, teach autistic young adults how to use public transportation, and foster their social skills to facilitate interactions within the community.
- Occupational therapists can collaborate with community organizations and transportation services to create supportive environments that accommodate the needs of autistic individuals, thus encouraging greater community participation.
- Occupational therapists can consider using GPS tracking, which provides objective indicators of community mobility, to monitor autistic individuals and evaluate their progress over time and tailor interventions accordingly.

Overall, our findings can guide occupational therapists in developing comprehensive and evidence-based strategies to facilitate greater community integration and improved quality of life for autistic young adults.

Conclusion

This study indicates that going to more destinations, spending more time out of the house, and having larger activity spaces go hand-in-hand with community participation, at least for autistic young adults. These findings further underscore the importance of future studies that examine the predictors of, and interventions that aim to enhance, various aspects of community mobility. They also suggest an additional possible direction for future research—combining GPS measures of community mobility with time use surveys or ecological momentary assessment of individuals in their natural environments. Combining these methodologies can shed additional light on the specific activities that individuals engage in at different destinations or while in transit, as well as how they feel while performing those activities or while moving around their communities.

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