Intellectual and Developmental Disabilities

Pre- and Post-Covid-19 Outcomes for Israelis with Intellectual Developmental Disabilities Living in the Community

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Abstract

This study is among the first pre–post examinations to explore differences in subjective well-being, adaptive and maladaptive behavior, close relationships, community integration, family members' satisfaction with residential and community living settings, and family contact before and after the Covid-19 outbreak. Participants demonstrated better life satisfaction and adaptive behavior before Covid-19 than after Covid-19. Participants reported closer relationships with family members and peers before Covid-19 and closer relationships with staff members after Covid-19. The findings reveal mixed, although mostly negative, effects of the pandemic on people with intellectual and developmental disabilities in the community in Israel, in accord with extant comparative research.

Keywords: community living, Covid-19; intellectual and developmental disability, subjective well-being

Pre- and Post-Covid-19 Outcomes for Israelis with Intellectual and Developmental Disabilities in the Community

In 2011, the Israeli government created an unprecedented international committee of experts to consult on whether and how to transition persons with intellectual and developmental disabilities (IDD) from institutional to community living (Soffer et al., 2017). Although the committee urged the government to facilitate deinstitutionalization, its recommendations were only realized in 2017 via a community transition program for people with IDD. A longitudinal study (three measures) followed the deinstitutionalization of 69 Israelis with IDD, all those who transitioned from institutions to the community in the program's first year. A year after the transition (between Time 2 and Time 3), Covid-19 broke out. This provided a unique opportunity to gain insights into the possible effects of the pandemic on people with IDD who live in the community, the focus of this paper.

According to Shakespeare et al. (2021) and other researchers, people with disabilities generally have been differentially affected by Covid-19, with poorer health outcomes, reduced access to routine health and social services, and more intense responses to changes in the community. People with IDD are particularly vulnerable to the physical, mental, and social effects of this pandemic (Courtenay & Perera, 2020; Landes et al., 2020). Cognitive impairments often limit understanding of the information needed for individuals to protect themselves and others. In addition, people with IDD may experience new and unforeseen difficulties in effectively using community support, particularly in times of social upheaval such as the pandemic (Blanck, 2021).

Little prior research has examined such issues facing individuals with IDD and their family members and supporters, especially during the pre- and acute postpandemic period. Additional research is needed, given recent findings by Landes et al. (2022) and others (e.g., Hansford et al., 2022) that data from multiple countries show more severe COVID-19 cases and mortality risk among people with IDD compared to the general population. Addressing social and environmental factors affecting individuals with IDD during the pandemic might mitigate these risks. Next, we review extant research related to IDD and Covid-19.

Literature Review

Psychosocial Effect of Covid-19

The World Health Organization (2020) recognized Covid-19 as a pandemic on March 11, 2020. Public health emergencies, including epidemics such as SARS, MERS, influenza, and Ebola, are associated with decreased health, safety, and well-being in the general population (Shah et al., 2020). Covid-19 has affected the world on many other fronts, prominently economic (Akbulaev et al., 2020; Chen et al., 2020) psychological (Lunsky et al., 2022; McBride et al., 2020; Talevi et al., 2020), and social (Osofsky et al., 2020; Saladino et al., 2020). Beyond the negative effect of the disease, the necessary actions taken to prevent wider spread, such as quarantine and lockdowns, although effective (Memon et al., 2021; Nussbaumer-Streit et al., 2020), have come with a great social price and likely significantly affected individual perceptions of self-determination (e.g., Shogren et al., 2020).

On the economic front, Covid-19 has resulted in extreme economic uncertainty (Altig et al., 2020). Methods of preventing Covid-19 have caused uncertainty in financial stability, which raised overall stress and anxiety levels (de Lima et al., 2020; Yang, 2022). On the social and psychological front, since the Covid-19 outbreak, the psychological well-being of the general public has decreased, in addition to increased anxiety and stress (Lunsky et al., 2022). People who have had Covid-19 are more likely to have high levels of depression and PTSD (Vindegaard & Benros, 2020).

Fear of Covid-19 also is related to psychological distress (Oti-Boadi et al., 2022). People in quarantine have higher levels of depression, anxiety, insomnia, and somatic symptoms (Kim et al., 2022; Kołodziejczyk et al., 2021). In addition, anxiety related to financial loss due to quarantine can have adverse psychological consequences (Yang, 2022).

In Israel, studies showed that during Covid-19, many residents experienced negative feelings such as high stress, a sense of shock and chaos, and Covid-19-related worries such as self or family members being infected, being in quarantine, and feeling alone (Horesh et al., 2020; Levkovich & Shinan-Altman, 2021). Of note, a cross-national longitudinal study found Israelis had lower rates of anxiety, depression, suicidal ideation, and Covid-19-related PTSD than citizens of other countries, including Germany and Poland (Benatov et al., 2022).

Studies are beginning to examine the effects of Covid-19 on specific populations, such as older adults, parents, and children (Colizzi et al., 2020; Fong & Iarocci, 2020; Imran et al., 2020). The current investigation explored the longitudinal effects of Covid-19 on people with IDD in Israel (e.g., Landes et al., 2020).

People with IDD during Covid-19

IDD is characterized by significant limitations in intellectual functioning and adaptive behavior (Schalock et al., 2021). Intellectual functioning refers to mental capacities, like learning, reasoning, and problem solving, and adaptive behavior refers to conceptual, social, and practical skills to function in the environment independently. According to the American Psychiatric Association, 1% of people have IDD worldwide (Schalock et al., 2021).

People with disabilities generally have experienced Covid-19 similarly to other populations, but in some domains, their experience has been unique (Dobransky & Hargittai, 2020; Hewitt et al., 2022). The unforeseen changes in everyday life in the community resulting from the pandemic, along with health and social regulations requiring self-isolation and social distancing, have been especially challenging for people with disabilities and their families (Toseeb et al., 2020; Willner et al., 2020).

People with IDD have had similar and different experiences of Covid-19 from that of people without IDD (Embregts et al., 2022; Gleason et al., 2021; Theis et al., 2021). People with IDD have unique challenges that place them at greater risk of adverse health outcomes due to Covid-19 (Landes et al., 2020). In addition to people with IDD being more vulnerable to dying of Covid-19 (Gleason al., 2021), governmental and social measures used to prevent Covid-19 have come with a unique price for people with IDD. They have reported challenges such as changes in daily life activities, missing social contacts and supporters, and having a hard time understanding the prevention measures (Embregts et al., 2022).

In addition, supporters and caregivers of children with IDD have reported adverse effects of the pandemic on children with IDD regarding their overall mental health, behavior, and learning. Parents noted the increased lack of access to therapy and expressed concern about the negative long-term effect on their child’s development (Theis et al., 2021). These same issues are likely true for adults with IDD and may be exacerbated with age. Overall, people with IDD in community settings likely have had fewer natural support systems than those with IDD living with their families as compared before Covid-19 (Navas et al., 2021).

The Israeli Situation as a Comparative Study

In the Israeli context, policies addressing Covid-19 went through different stages, including lockdowns and curfews (Kaim et al., 2021; Maor et al., 2020; Rossman et al., 2021) to decrease the Covid-19 infection rate (De-Leon et al., 2021; Last, 2020). Another government policy at a later stage allowed people who had been vaccinated to access certain businesses and public spheres (Kamin-Friedman & Peled Raz, 2021) while pushing for vaccination of the population and becoming a leading country in vaccination rates (Balicer & Ohana, 2021; Rosen et al., 2021). The government’s response to Covid-19 was gradual and included measures to enhance public health and safeguard vulnerable populations. The government adopted control measures ranging from social distancing and self-quarantine to lockdown, depending on the outbreak’s severity. These restrictions have affected Israelis with disabilities in many ways from February 2020 (prepandemic) to October 2020 (during the pandemic). For example, people with disabilities have reported a decrease in work and financial stability; fear of not getting the appropriate support; and worse health, emotional and general functioning, family connection, and social relationships (Barlev et al., 2020).

About 34,000 people in Israel live with IDD, of whom 11,000 live in out-of-home facilities, including hostels, individual or group apartments, and foster care (Namer-Furstenberg et al., 2019). A recent study of Israeli family caregivers of people with IDD during the pandemic showed that they increasingly adopted technology to remotely communicate with their family members with IDD (Araten-Bergman & Shpigelman, 2021). Participants also reported that these technologies were not effective in filling the gap created by the lack of face-to-face contact and support, limiting in their ability to provide social support (Araten-Bergman & Shpigelman, 2021).

Study Variables

This study is among the first to examine variables of subjective well-being, adaptive and maladaptive behavior, close relationships, community integration, family members’ satisfaction with the residential setting, and family contact before and after Covid-19.

Subjective well-being reflects general or specific life satisfaction across various domains, including standard of living, health, achievement in life, relationships, safety, community connectedness, and future security (Cummins & Lau, 2005; Diener et al., 2002). Evidence shows adults with IDD have lower levels of well-being than the general population (Sheppard-Jones et al., 2005; Simões et al., 2016).

Adaptive behavior, defined as the coordination of conceptual, social, and practical skills learned and performed in daily life (Schalock et al., 2021), includes language development, prevocational or vocational activity, self-direction, and socialization (Nihira et al., 1993). Maladaptive behavior is not age appropriate, not accepted by society, self-harming, and interruptive in the process of learning (Aziz & Yasin, 2018). Its dimensions may include violent and destructive, rebellious, untrustworthy, and sexually aberrant behavior and psychological disturbances (Nihira et al., 1993).

Community integration refers to the meaningful and ongoing social involvement of individuals in the community (Blanck, 2020). Social involvement reflects active participation in social activities, support and connections to the community, and exposure to people in social contexts (Abu-Rayya, 2006; Levasseur et al., 2010; Shogren et al., 2018).

People with IDD are vulnerable to loneliness. According to Gilmore and Cuskelly (2014), half of the population of people with IDD are chronically lonely, compared with around 15%–30% of the general population. They report fewer friendships and have relationships characterized by less closeness and positive reciprocity than their typically developing peers (Emerson & McVilly, 2004; Tipton et al., 2013). In addition, comorbid mental and physical health problems associated with IDD are likely to be compounded by chronic loneliness (Gilmore & Cuskelly, 2014). For this reason, people with IDD in community residential settings may have had trouble keeping close relationships and contact with family members during Covid-19 as compared to before the pandemic.

Based on the limited extant research, we hypothesized that: (1) Participants who reside in the community will report a relative reduction in subjective well-being, adaptive and maladaptive behavior, close relationships, and community integration, as compared to their reports before the pandemic; and (2) This effect will negatively affect their families and supporters regarding their satisfaction with community living and the frequency and qualitative contact with their family members and community support (Shogren et al., 2018).

Method

Study Design

We applied a pre–post study design. This study used data from a government-commissioned longitudinal survey of the Israeli deinstitutionalization policy reform. The study team monitored the transition of people with IDD from institutional care to community living using validated international indicators. Between the second and third measurements, the Covid-19 pandemic occurred. This provided the opportunity to examine differences in psychological, behavioral, social, and family-related aspects before and after the pandemic. This study was approved by the Institutional Review Board of the University of Haifa.

Participants

The participants included 37 (54.3%) men and 32 (45.7%) women, of whom 97.1% were Jewish and 2.9% were Christian. Their ages ranged from 17 years to 73 years, with an average of 45 (*SD* = 13.96). Information about the participants' level of functioning and diagnosis was obtained from the Ministry of Welfare and Social Affairs (for details regarding IDD diagnosis in Israel, see Gur et al., 2016). In terms of IDD, 41.4% of participants had a mild IDD, 42.9% had a moderate IDD, and 12.9% had a severe IDD.

In terms of adaptive behavior, almost one third (32.9%) of the participants did not demonstrate challenging behaviors. However, 22.9% showed low challenging behavior, 38.6% showed moderately challenging behavior, and 5.7% showed high challenging behavior. Most participants (74.3%) had no nursing or medical needs. About a fifth had nursing or medical needs, including 5.7% with complex needs.

Three quarters of the sample (74.7%) lived in small apartments in the community with up to six residents. In addition, 8.9% lived in apartments with 11 residents and 5.1% lived in apartments with 13 residents. Most participants (87.1%) were employed; however, 20% worked in a sheltered employment setting. In terms of their workplace, 42.9% worked in a vocational center in the community and 24.3% worked in the free market.

Measurements

Subjective well-being was measured by the Personal Wellbeing Index (Cummins & Lau, 2005). The scale contains seven items assessing aspects of life satisfaction: standard of living, health, achievement in life, relationships, safety, community connectedness, and future security. Scores were used to determine participants' satisfaction with their overall life and provide insights into various aspects that shaped their subjective well-being. Participants completed the scale with assistance from research assistants as needed. Answers were reported on a 2/3/5/11 point Likert-type scale, and raw scores were converted into a standard 0–100 scale (Cummins & Lau, 2005). In the current study, the scale yielded internal consistency of .95 (pretest) and .85 (posttest).

Close relationships were measured by the Close Relationships Inventory of the Personal Life Quality Protocol (Conroy, 2017). The scale collects data about the respondent's five closest relationships. It captures their nature—including paid or unpaid—and intensity and frequency. The participants completed the scale with assistance as needed.

The scale measuring community integration was based on the Integrative Activities Scale of the Personal Life Quality Protocol (Conroy, 2017). The scale consists of 15 items and measures how often people visit with friends, go shopping, go to a place of worship, engage in recreation, and so on, in the presence of people without disabilities. Participants completed the scale with assistance if needed. A 5-point Likert scale (1 = *not at all,* 5 = *almost every day*) was used, and a total mean score was calculated. The scale showed excellent internal consistency (pretest: α = .93, posttest: α = .92).

Adaptive behavior was assessed using the Adaptive Behavior Scales—Residential and Community (Nihira et al., 1993). This tool provides an assessment of adaptive and maladaptive behavior. Adaptive behavior subscales measure language development, prevocational and vocational activity, self-direction, and socialization. Maladaptive behavior subscales assess violent and destructive, rebellious, untrustworthy, and sexually aberrant behavior and psychological disturbances. The scales have good reliability and validity for monitoring changes in adaptive functioning over time (Nihira et al., 1993). The scales were completed by the primary supporter or staff member for the participants in the residential setting. Sum scores were calculated for adaptive and maladaptive behavior. The scale showed low internal consistency for adaptive behavior (pretest: α = .58, posttest: α = .57) and reasonable internal consistency for maladaptive behavior (pretest: α = .67, posttest: α = .75).

Family members’ satisfaction with the residential living setting was based on a survey of families and guardians of people who lived at the Hissom Memorial Center (Conroy, 1998). Family members were asked to describe their opinions about the quality of their relative’s life in the residential facility. The scale consisted of 15 items that represented different life domains, such as what they do all day, treatment by the staff, ability to make choices, privacy, comfort, and so on. Responses were rated on a 5-point scale and a total mean score was calculated. The scale showed strong internal consistency for the pretest measurement (α = .87), and lower consistency for the posttest measurement (α = .57).

The measure of family contact was also based on Conroy’s (1998) survey of families and guardians of people with IDD. The 5-item scale assesses how many contacts in the past year the family member had with their relative (e.g., telephone calls, visiting their home), using a 10-point scale (1 = *not at all*, 10 = *almost every day*). A total mean score was calculated. The scale showed low internal consistency (pretest: α = .41, posttest: α = .47).

Procedure

In the first year of the study, the disability administration provided the research team with a list of institutional residential settings that were expected to promote the transition of residents from institutional to community apartment living. The social workers in each institution reached out to residents who were expected to move to community living and their families and legal guardians and asked them if they would participate in the longitudinal study. The social workers connected the residents and family members who gave their initial agreement to participate in the study with the research team.

Participants and their supporters received vital information about the study that emphasized that participation was voluntary and they had the right to withdraw without any penalty at any stage. Participants were assured that all measures would be taken to protect their anonymity and confidentiality. All participants signed an informed consent agreement with linguistic simplification for people with IDD. The research assistants who gathered the data were trained for collecting data with people with IDD and their families and supporters.

Analysis

Given the uniqueness of this study and its sample size, descriptive statistics were calculated to assess the participants' demographic characteristics and the nature of the research variables. Paired-samples *t*-tests were then conducted to compare subjective well-being, close relationships, community integration, adaptive and maladaptive behavior, family members' satisfaction with the residential setting, and family contact before and after the Covid-19 outbreak. Because the residential settings differed in size, Pearson correlations were used to examine associations between the number of residents in residential settings and research variables before and after Covid-19.

Results

This study's objective was to evaluate the effects of the Covid-19 pandemic on psychological, behavioral, social, and family-related aspects of the lives of Israelis with IDD in the community. Specifically, the study explored differences in subjective well-being, adaptive and maladaptive behavior, close relationships, community integration, family satisfaction with the residential setting, and family contact before and after Covid-19.

We generally found support for our hypotheses; namely, participants in the community reported a relative reduction in subjective well-being, adaptive and maladaptive behavior, close relationships, and community integration compared to before the pandemic. This effect differentially and negatively affected their families and supporters on average regarding their satisfaction with community living and the frequency and quality of contact with their family member with IDD and community supports.

Subjective Well-Being

The paired-samples *t*-test showed a significant difference in participants' life satisfaction before (M = 89.00, SD = 19.01) and after (M = 80.00, SD = 26.73) the pandemic, $t_{(49)} = 2.20$, $p = .032$. No significant differences were found in the seven subdomains of standard of living, health, achievement in life, relationships, safety, community connectedness, and future security.

Adaptive and Maladaptive Behavior

Table 1 shows a significant difference in adaptive behavior scores, with better behavior before than after Covid-19. Participants demonstrated higher self-direction (i.e., self-determination) before Covid-19. As for maladaptive behavior, no significant difference was found in the total score. However, participants demonstrated increased rebellious behavior before Covid-19, which may reflect fewer social controls before the pandemic.

Close Relationships

Importantly and encouragingly, no significant difference was found in the number of close relationships reported by participants before (M = 1.37, SD = 0.75) and after (M = 1.52, SD = 0.64) the pandemic, $t_{(63)} = -1.18$, $p = .244$. In addition, no significant differences were found in the frequency (pretest: M = 2.96, SD = 0.99; posttest: M = 2.87, SD = 0.89; $t_{(50)} = 0.80$, $p = .428$) and intensity (pretest: M = 3.06, SD = 1.10; posttest: M = 2.80, SD = 0.88; $t_{(56)} = 1.31$, $p = .195$) of the relationships. However, the analysis revealed a significant difference in the number of close relationships with family members, $t_{(59)} = 4.80$, $p < .001$, which may be expected due to social distancing. Participants reported more close relationships with family members before ($M = 0.32$, $SD = 0.54$) than after ($M = 0.16$, $SD = 0.41$) Covid-19.

Likewise, a significant difference occurred in the number of close relationships with peers, $t_{(59)} = 2.65$, $p = .009$), with more relationships before ($M = 0.17$, $SD = 0.54$) than after ($M = 0.09$, $SD = 0.31$) Covid-19. In contrast, participants reported more close relationships with staff members after ($M = 0.15$, $SD = 0.45$) than before ($M = 0.07$, $SD = 0.25$) Covid-19, $t_{(59)} = -2.75$, $p = .006$. Again, this may reflect limited social contact during Covid-19.

Community Integration

Although no significant pre–post difference was found in the total score of community integration, $t_{(63)} = 0.97$, $p = .338$, significant differences emerged for several items (see Table 2). Predictably, community integration was higher before the pandemic. This involved, for example, visiting a grocery store, restaurant, shopping center, mall, retail store, post office, health or exercise club, spa, or health center.

Family Satisfaction with Residential Setting and Family Contact

The analysis showed family members' satisfaction with the residential setting was higher before ($M = 4.16$, $SD = 0.55$) than after ($M = 3.45$, $SD = 0.43$) Covid-19, $t_{(67)} = 10.90$, $p < .001$. This is likely due to social restrictions during the pandemic, which may have had a particularly strong effect on people with IDD (e.g., if they are less likely to use social media to stay in touch with friends and peers). Yet no significant difference was found in family contact between participants and their family members before ($M = 5.87$, $SD = 0.97$) and after ($M = 5.64$, $SD = 0.87$) the pandemic, $t_{(66)} = 1.82$, $p = .073$, again likely reflecting families' commitment to their loved one. A significant difference emerged in family members' participation in meetings regarding the participants' care, $t_{(66)} = 2.71$, $p = .008$, with more participation before ($M = 4.55$, $SD = 1.73$) than after ($M = 3.91$, $SD = 1.61$) the pandemic. This last finding is concerning and requires further investigation because it may reflect diminished quality of services and support after the pandemic.

Associations between Number of Residents and Research Variables

A significant negative correlation was found between the number of residents in residential settings and life satisfaction after Covid-19 ($r = -.34$, $p = .038$). No significant correlation was found before Covid-19 ($r = -.03$, $p = .781$). Significant negative correlations were found between the number of residents in residential settings and adaptive behavior before ($r = -.49$, $p < .001$) and after ($r = -.38$, $p = .012$) Covid-19. No significant correlations were found between the number of residents in residential settings and (a) maladaptive behavior, (b) family satisfaction with the residential setting, (c) family contact, or (d) community integration before and after Covid-19. A significant positive correlation was found between the number of residents in residential settings and the number of close relationships reported by the participants after Covid-19 ($r = .44$, $p = .002$). No significant correlation was found prior to Covid-19 ($r = -.13$, $p = .299$).

Discussion

To our knowledge, this study was among the first to compare psychosocial outcomes for people with IDD in the community and their families before and during the Covid-19 outbreak in Israel. Several important findings are worthy of additional study. These findings are consistent with and unique relative to the general population. For example, participants with IDD reported higher levels of subjective well-being and staff members reported they had higher levels of adaptive behaviors before the pandemic. This reinforces the need to focus on the social and health effects of the pandemic in the short and long term for vulnerable individuals in society, such as those with IDD.

Predictably, participants with IDD had more family members, friends, and supporters with whom they felt close and visited services and businesses in the community for essentials, entertainment, and leisure more before than during the pandemic. The new social and economic norms necessitated by the pandemic have differentially affect people across the spectrum of physical, mental, and cognitive disabilities.

The current findings on subjective well-being and adaptive behavior are in accord with findings from other scholars—namely, that people with IDD are particularly vulnerable to the changes in lifestyle and routine that have resulted from the pandemic (see Courtenay & Perera, 2020). Although concerns have been raised regarding overall individual mental health (Courtenay & Perera, 2020), the effects of the pandemic on people with IDD over time still require close review and analysis.

The current results are consistent with emerging literature on Covid-19-related mental health outcomes among people with IDD. These studies generally showed elevated anxiety, depression, overall poor well-being, and behavioral issues in this populations during the pandemic (Doody & Keenan, 2021; Lake et al., 2021; Lunsky et al., 2022; Navas et al., 2021; Rosencrans et al., 2021). The few studies that have measured mental health outcomes among individuals with IDD before and after lockdowns showed a general increase in behavioral issues, reflected by increased psychotropic medication prescriptions, psychiatric consultations (Rauf et al., 2021), and overall depression (Villani et al., 2020).

The decrease in the number of close family and friend contacts and weakened community integration reported by participants with IDD align with concerns in the literature regarding the long-term effects of the pandemic (Courtenay & Perera, 2020). The current findings are consistent with studies with people with IDD during the pandemic who generally reported increased loneliness and isolation (Jesus et al., 2021; Lake et al., 2021; Lunsky et al., 2022; Rosencrans et al., 2021). In accord, Villani et al. (2020) found that adults with Down syndrome reported more social withdrawal and decreased function in instrumental activities of daily living after the lockdown. These authors suggested that diminished independence in activities such as shopping may particularly affect people with cognitive disabilities.

Perhaps consistent with close family bonding due to social isolation, although we found a decrease in the overall number of close relationships (family and friends) during Covid-19, participants reported no meaningful change in the frequency or intensity of those relationships. Indeed, we found that the level of family contact (reported by family members of participants with IDD) did not change during the pandemic, which is encouraging.

The findings suggest that these participants with IDD experienced core and relatively robust support from their nuclear family during this time of crisis. Family and familism are key characteristics of Israeli culture (Bijaoui & Reiner, 2013) and therefore, the findings may be unique to family-oriented societies. This requires more research from a comparative perspective to examine the impact of the pandemic across cultures.

In contrast to the literature, we found that Covid-19 did not change most maladaptive behaviors among participants (as reported by staff members). Thus, positive and maladaptive behaviors may be relatively stable, regardless of Covid 19. Nonetheless, rebellious behavior reportedly decreased during the pandemic, perhaps a product of social isolation or closer monitoring in a more socially controlled pandemic environment. This is in accord with studies that reported an increase in agreeability among people with Down syndrome during Covid-19 (Hartley et al., 2022), but further research in this area is warranted.

In accord, Villani et al. (2020) found a decrease in aggressive behavior among individuals with Down syndrome after lockdowns, again likely a product of social isolation and increased social control. Notably and positively, participants with IDD in the current study reported an increase in the number of close relationships with supporters and staff members during the pandemic. This may help explain the findings concerning the lack of overall change in maladaptive behaviors before and during Covid-19 and the reduction in rebellious behavior. These trends underscore the key role of support and connections to family and staff members regarding behavior modification.

Taken together, the findings reveal a mixed and nuanced picture of the possible unique impact of the pandemic on people with IDD in the community in Israel. Although some positive outcomes may have resulted from the crisis (e.g., increased close relationships), other changes in diminished well-being, adaptive behavior, social network size (namely, fewer close relationships), and community integration confirm concerns raised in the literature regarding the increased vulnerability of this population during the pandemic. Future study is needed to assess the magnitude of these findings across disability groups and other populations across the life course and in different cultures.

The current findings are consistent with studies that showed people with IDD generally have smaller social networks (van Asselt-Goverts et al., 2013) and limited community access (McDonald et al., 2022). Thus, fewer relationships and higher community isolation in times of crisis should be concerning to supporters and policymakers, who may consider government reimbursement and support for this population. Because isolation, lack of social support, and limited community likely negatively affect the mental and physical health of individuals with IDD (Alexandra et al., 2018), strengthening and maintaining social ties and community support will be vital as society emerges from the pandemic.

Our study has several limitations. First, its close longitudinal sampling limits the ability to generalize the current findings. This study requires replication and control with additional individuals—e.g., people with IDD who still reside in institutional settings, such as in nursing homes and other such congregate-care facilities. In accord, Landes et al. (2022) found that in California, Covid-19 diagnosis among individuals receiving IDD services appeared related to the number of individuals living in the residence, with adverse outcomes associated with the level of skilled nursing care in the facility.

Second, this study would have benefited from a larger population of participants with IDD. Additionally, because the people with IDD in this study were institutionalized before transitioning to community housing, it is plausible that the findings are partly associated with this change. Additional studies are needed across living arrangements, including different communal living settings like individuals who live at home with their family. Finally, in the absence of repeated measures of the dependent variables during the pandemic, we cannot establish causation, and our initial findings are meant to add to the developing literature in this area. Furthermore, research with individuals who lived in the community before the pandemic may shed light on the true impact of Covid-19 versus the impact of recent deinstitutionalization, whose impact we know continues for many years.

Future studies will need to address these and other limitations. More research is needed on the impact of the pandemic on people with IDD, their families, and similarly vulnerable populations. We do not yet understand the long-term social, economic, and cultural effects of the pandemic on vulnerable individuals in society and across cultures.

Despite the study limitations, our findings have important and new implications for research, practice, and policy. Generally, it is very difficult and unusual to collaborate with families, supporters, the government, and others in a study of this kind. Additional research and interventions involving these collaborations with people with IDD during the pandemic should continue. As Hewitt and colleagues (2022) wrote: “Research needs to look at how [Covid-19] changed the lives of people with IDD. It is important to know if they feel they have the same amount of control over their lives, are part of the community, and are as independent as usual. Research must learn more about how where people live makes a difference in what they have and continue to experience as a result of COVID-19”.

As such, this study makes a valuable incremental contribution to the understanding of social and environmental factors that affect individuals with IDD in the community before and after Covid-19. The practical relevance of this investigation is heightened by the unique and pressing socioeconomic conditions and demands (e.g., lack of support, isolation, health, and social trauma; Hewitt et al., 2022) imposed by Covid-19 on individuals with IDD and their family members and supporters and its significant health and mortality consequences.

Conclusion

The long-term aim of studies examining community living by people with IDD before and after Covid-19 is to increase their social networks, community ties, social support, economic empowerment, and self-determination. Supporters of all kinds—health, vocational, and rehabilitative—must help foster positive changes and social engagement among people with IDD during and after the pandemic. Because little extant research has examined such issues, we do not yet know the extent to which concerning findings from multiple countries showing more severe Covid-19 cases and mortality risk among people with IDD (as compared to the general population) may be mitigated by positively addressing social and environmental factors they face during the pandemic.

These combined efforts must be assessed systematically over time as society emerges from the pandemic, such that individuals, their families and supporters, and government policymakers may make fully informed decisions to promote the meaningful inclusion, health, and safety of people with IDD in society.

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Table

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Table 1.

Results of t-test and descriptive statistics for adaptive and maladaptive behavior

	Pre Covid-19		Post Covid-19					
	M	SD	M	SD	*n*	95% CI for Mean difference	t	df
Adaptive behavior- Total score	35.92	8.38	31.88	9.81	64	1.22, 6.87	2.86**	63
Language development	3.08	1.00	3.20	0.78	59	-.44, .21	-0.73	58
Prevocational/vocational activity	6.15	2.06	5.61	2.01	61	-.07, 1.15	1.78	60
Self- direction	15.87	4.85	13.53	4.96	62	1.04, 1.08	3.59**	61
Socialization	11.03	2.36	10.66	2.57	61	-.33, 1.08	1.07	60
Maladaptive behavior- Total score	24.75	12.16	21.56	14.33	61	-.41, 6.81	1.77	60
Violent and destructive behavior	9.10	5.75	9.05	6.60	61	-1.52, 1.62	0.06	60
Rebellious behavior	6.35	4.08	4.52	4.10	60	.66, 3.01	3.12**	59
Untrustworthy behavior	4.05	3.50	3.35	3.28	60	-.25, 1.65	1.47	59
Sexually aberrant behavior	0.35	1.02	0.22	0.76	60	-.08, .34	1.27	59

Psychological disturbances	4.83	2.60	4.63	3.85	60	-.73, 1.13	0.43	59

** p < .01.

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Table 2.

Results of t-test and descriptive statistics for community integration

	Pre Covid-19		Post Covid-19					
	M	SD	M	SD	*n*	95% CI for Mean difference	t	df
Visit a grocery store	3.83	1.08	3.60	0.91	64	1.24, 2.12	2.12*	63
Go to a restaurant	3.05	1.35	2.50	1.30	56	.15, .96	2.74**	55
Go to a shopping center, mall, or another retail store to shop	3.12	1.38	2.53	1.02	57	.21, .98	3.11**	56
Go to a post office	2.22	1.41	1.62	1.13	45	1.01, 3.01	3.01**	44
Go to a health or exercise club, spa, or center	1.94	1.42	1.45	1.09	46	.12, .84	1.70*	45

*p <.05; ** p < .01.