Preserving cognitive abilities in adults with intellectual disabilities

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Abstract
This research identifies risk factors for cognitive decline in adults with intellectual disabilities (ID). We investigated factors that can be used to maintain their cognitive abilities. In adults with ID, the primary impairment is reflected in significantly reduced intellectual abilities and significant deviations in adaptive skills. Associated psychosocial problems and wider lifelong rehabilitation are also common. Well-being and health are important determinants of social inclusion and satisfaction with one's life and work. The ageing of people with ID pose a major challenge to all those who work and live with them. Their quality of life varies according to the environment in which they live and work. As we age, our physical and cognitive abilities decline, so it's important to maintain them for as long as possible through a range of activities tailored to the individual. The results of the study showed that maintaining adequate literacy skills is essential for adults with ID. It helps to increase their independence, participation, and responsibility, and also significantly improves their self-esteem. We have found that lifelong learning or guided learning is essential for maintaining acquired skills and slowing down the ageing process. This is how a person with ID can adequately internalise what has been learnt and automate learning and work processes. This significantly slows down the process of forgetting which is much faster and more pronounced in people with ID. KEY WORDS: intellectual disabilities, ageing, preserving cognitive abilities, lifelong learning

Ohranjanje kognitivnih sposobnosti pri odrasli osebi z intelektualnimi primanjkljaji

Povzetek
Raziskava odkriva dejavnike tveganja za upad kognitivnih sposobnosti pri odrasli osebi z intelektualnimi primanjkljaji (IP). Raziskali smo dejavnike, s katerimi lahko ohranjamo njene kognitivne sposobnosti. Pri odrasli osebi z IP se primarna motnja odraža v pomembno znižanih intelektualnih sposobnosti ter pomembnih odstopanjih prilagoditvenih spretnostih. Pogoste so tudi pridružene težave s psihosocialnega področja ter širše vse življenjske rehabilitacije. Dobro počutje ter zdravje pa pomembno določa socialno vključenost ter doživljanje zadovoljstva z lastnim življenjem in delom. Starostni procesi ter ostarevanje oseb z IP predstavlja velik izziv vsem, ki z njimi delajo ter živijo. Kakovost njihovega življenja se razlikuje glede na okolje, kjer živijo ter ustvarjajo. S staranjem se človekove telesne in kognitivne sposobnosti zmanjšajo, zato je pomembno, da jih čim dlje ohranjamo s pomočjo različnih aktivnosti, ki so prilagojene posamezniku. Rezultati raziskave so pokazali, da je ohranjevanje primerne pismenosti nujno potrebna pri odrasli osebi z IP. Ta pripomore k večji samostojnosti, participaciji in odgovornosti v življenju ter pomembno dviga tudi njihovo samozavest. Ugotovili smo, da je za ohranjanje naučenih spretnosti in znanj ter upočasnitev procesa staranja bistvenega pomena vseživljenjsko izobraževanje oz. usmerjeno (vodeno) učenje.
Tako oseba z IP naučeno in vodeno primerno ponotranji ter avtomatizira učne ter delovne procese. S tem pa pomembno upočasni proces pozabljanja, saj je ta pri njih bistveno hitrejši ter izrazitejši. Ključne besede: intelektualni primanjkljaji, staranje, ohranjanje kognitivnih sposobnosti, vseživljenjsko učenje

INTRODUCTION

Intellectual deficits (our legislation uses the term intellectual disabilities/ID) are neurodevelopmental disorders that occur before the age of 18. People with ID have significantly lower intellectual abilities (Criteria for defining the type and degree of deficits, impairments and disabilities of children with special needs, 2015). People with ID also have associated disorders (World Health Organization, 2022) and significant deficits in adaptive abilities which are a set of social, practical and conceptual skills (Marinič et al., 2015). Cognitive abilities are weaker, which affects several areas of cognition. They are less able to learn, their learning remains at a more concrete, lower level of knowledge. Working memory is weaker, so they are unable to process large amounts of data and information; metacognitive skills such as evaluating, planning, organising, influencing and controlling cognitive processes are underdeveloped; generalisation and selective attention are also poorer. Targeted learning of social skills is appropriate as they tend to have more difficulty adapting to, accepting or internalising social rules (Hunt and Marshall, 2006).

Quality of life is important in old age, but difficult to assess (Musek, 2012) as overall quality of life indicators for people with ID vary widely (Sunčič, 2018). Ageing brings changes that are inevitable. It brings about new and different needs, changes in their intensity and ranking in the value pyramid. The difference lies in how people experience and accept them, which varies and depends on the individual. External (environmental) factors also have a significant impact (Wagner et al., 2016). Šalamun (1997) notes that work is of paramount importance to people with ID, giving them a sense of purpose even late in life. People with ID find it more difficult to maintain previously acquired skills and work habits if they are no longer involved in work and social life after completing their education. Their disengagement leads to a decline in skills or premature ageing. Žgur (2013) highlights the role of extended training for people with ID, as they need significantly more time to internalise or automate the knowledge they have acquired, due to multiple associated deficits. The most effective training sessions are those that involve several complex cognitive functions at the same time (e.g. motor and visual memory, speed of information processing, spatial orientation, planning, etc.). Their success is therefore consequently transferable to the daily activities of lifelong tasks. The importance of lifelong learning is also stressed by Andersen (2021) who considers it important for stimulating cognitive activity and maintaining brain plasticity. Research shows (ibid.) that lifelong learning promotes the generation and connection of neurons in the brain, which improves memory, attention, reasoning and inference. Participation in such activities may also reduce the risk of dementia. Flexman (2021) highlights a number of factors that influence the risk of dementia, and the role of lifelong learning and social engagement plays a key role in this process. Research shows (ibid.) that even in adulthood, the brain shows neuromodifications that can develop and adapt throughout life. For example, taking classes, reading, playing board games, creating, playing instruments can stimulate brain pathways and increase neuromodification, which improves cognitive function. Lifelong learning also allows for more social interaction and the necessary environmental support that is crucial for people with ID throughout their lives (Rowe and Kahn, 1988, in Simone and Scuilli, 2006). For the inclusion of people with ID, it is essential that practitioners provide adequate training to improve their literacy skills (Kastelic et al., 2005). The author points out that the training programme should be tailored to the person (simple content, short steps with sufficient time, taking into account the individual characteristics of the person - individualisation and personalisation), and that the person with ID should be integrated into the social environment as much as possible. In order to achieve the goal of integration of people with ID, it is necessary to know them well, and this requires appropriate experience and training of professional workers. Inclusion goals are best achieved through programmes delivered in adult education settings. Rowe and Kahn (1988, in Simone and Scuilli, 2006) highlight the challenges of ageing and identify three key factors for successful ageing: maintenance of high cognitive and physical function, active participation in life and prevention of disease. The authors focus on cognitive function, which includes reasoning, inference and judgement. This function is mainly based on good psychophysical well-being (health) and adequate brain activation. Maintaining cognition is crucial for brain health, as ageing can have a negative impact and cause cognitive decline. Physical and cognitive stimulation (exercise) reduces the negative effects of ageing on brain plasticity.

The aim of the study was to identify the functioning of the older person with ID, his characteristics and special needs, as a result of the primary disorder and the consequences of ageing. We analysed the adaptability and appropriateness of the existing activities in the residential unit where he lives. We investigated his need for more support and changes to the current state, in order to maintain his cognitive abilities. Based on the findings, we formulated guidelines to improve lifelong care for the older persons with ID. We focused our research on a selection of general and specific activities tailored to the needs of a person with ID. There is little research in the area of the relationship between ID and cognitive decline, and very little research specifically involving older people with ID, living in institutional settings (residential units).

METHODOLOGY

We used a qualitative methodological approach and deductive reasoning. A single case study was conducted. We used a non-random purposive sample of three people from an institutional setting in the north-east region: a man living in a residential community and two professional workers who work with him on a daily basis. The sample included one person with more pronounced ID, aged 50 years. The interviewees were a professor of special and rehabilitation pedagogy and a work instructor. We used existing documentary material and material produced in the course of the research. Information was gathered through interviews and observation. We met with the resident once a week for three months. All meetings were face-to-face. The questionnaire consisted of open questions. We were particularly interested in the life of the person with ID in the residential community, the course of his day, shared decision-making about the activities to be carried out (for maintaining cognitive abilities), and the methods for strengthening reading, numeracy and other skills. The data obtained during the research process was reviewed, analysed, compared, conceptualised and categorised. The resulting list of codes was grouped and categorised. In conclusion, a brief explanation of the study research problem was given and a grounded theory was formulated to summarise the findings of the analysis.

RESULTS

The two professional workers noted that the resident can participate in daily activities, according to his schedule and learning objectives. Learning promotes participation, leading to a better quality of life among older people. This is especially relevant for productive ageing, since learning is associated with successful adaptation and problem management, as indicated in the World Health Organisation Report (World Health Organisation Report, 2002, in Boulton-Lewis et al., 2008).

Professor of special and rehabilitation pedagogy		Work instructor
Does the resident have the chance to engage in daily learning or training? How is this ensured?	»He has the opportunity to participate in daily learning sessions, according to his schedule.«	»He has the opportunity to learn on a daily basis, according to the predetermined learning objectives but also through daily activities, such as verbal communication and participation in individualized activities.«

Table 1: Daily learning opportunities

Professor of special and rehabilitation pedagogy		Work instructor
What activities are used for maintaining the resident's cognitive function?	»He enjoys completing worksheets, including crosswords, rebuses, and quizzes. Additionally, he plays didactic games on the computer to improve his computer literacy skills.«	»Artistic expression plays an important role in cognitive function maintenance, as it stimulates a variety of thought processes in an individual while tackling an artistic challenge, alongside eliciting a significant emotional response. However, different activities require different levels of cognitive processes and need to be adapted to the individual's abilities.«

Table 2: Selection of cognitive activities

The two professional workers emphasise that the resident's cognitive functioning is maintained on a daily basis in a variety of ways. It cannot be assumed that adults with ID are fully aware of their ageing process. Regardless, it is important to encourage them to be as active as possible, within the limits of their situation and disability (World Health Organization Report, 2002, in Boulton-Lewis et al., 2008).

Professor of special and rehabilitation pedagogy		Work instructor
How can you help enhance concentration and focus?	»Various forms of exercise, such as walking and participating in sports activities, etc.«	»The resident's ability to concentrate is limited, even when engaging in activities that he himself has chosen. He attempts to hurry, but is inconsistent in his approach and is quickly satisfied with his achievement. He struggles with differentiating between poor and quality work. Additionally, his eyesight poses a challenge, although he frequently declines to wear glasses.«

Table 3: Ways to develop concentration and focus

The professional workers state that they employ a variety of exercises and activities to enhance concentration and focus. The work instructor highlights the resident's inconsistency and impreciseness in performing activities, which could be attributed to his poor eyesight. Fostering concentration and focus has the potential to enable the resident to execute tasks longer and with improved efficiency. It can be strengthened through various exercises, with interactive mindfulness exercises proving particularly beneficial (Palma, 2018).

Professor of special and rehabilitation pedagogy		Work instructor
How is the resident trained in multitasking skills such as meal preparation, menu planning, walking, mental arithmetic, and machine repairs? To what degree is support provided?	»In the afternoon, he prepares a meal with the work instructor or independently, as arranged the previous day.«	»The old saying that practice makes perfect holds true to a certain extent, but with our users the focus must be on the task's level of difficulty, which must be suitable to their ability and comprehension. Extensive practice, coupled with adequate consolidation and repetition is necessary to attain the objective. Additionally, we need to bear in mind that the process of forgetting can occur much more rapidly.«

Table 4: Training multitasking techniques

The resident prepares his own lunch and may require assistance from time to time, particularly when experimenting with new recipes. He prepares a meal for all housemates. He has an organised approach to cooking, reading the recipe and selecting ingredients. When seasoning the meat, he tends to make use of all available spices, regardless of their compatibility. He has difficulty applying the appropriate cooking time for pasta, often allowing it to cook for an hour until all other side dishes and meat are ready. He serves himself dinner. He uses good hygiene and safety practices while cooking. Following the meal, he independently loads the dishwasher with the used dishes. He plans the meals in advance to make sure adequate ingredients are available. When he expresses a wish to prepare a meal that is not on the schedule, the establishment accommodates his request. Professor of special and rehabilitation pedagogy reports that they jointly prepare meals, occasionally the residents prepare them independently through prior agreement. The day before, a meal plan is established. The meal is then prepared based on one's preferences and abilities. The work instructor highlights that when selecting activities, the level of difficulty must be considered according to one's abilities and understanding. They practice a lot to reinforce learning, as individuals with ID tend to internalize and automate information at a slower pace, and their process of forgetting occur much rapidly.

Professor of special and rehabilitation pedagogy		Work instructor
How do you involve the resident in the wider social environment?	»Through organised excursions, sporting events, and holidays. Transportation by minibus is provided to enable his participation in the activities.«	»The resident is actively involved in diverse social activities, including art colonies, exhibitions, athletics and Special Olympics, as well as running events, etc. He participates in several events outside our institution, often travelling alone by bus if the event is held in Ptuj. For other activities, suitable transportation is organised.«

Table 5: Social integration

The resident frequently partakes in a variety of excursions, events, holidays, art colonies, sports activities. His preferences are considered in the selection of activities and social engagement. He has access to organised transportation, he benefits from free bus passes, he can visit the town for his preferred events. It is, however, important for him to notify in advance of his intentions.

Professor of special and rehabilitation pedagogy		Work instructor
What support systems are utilised and how do they enhance the standard of living for the residents?	»The entire team is dedicated to enhancing the quality of life for our residents through friendly interactions, cooperation, adherence to rules, etc.«	»Quality of life can be enhanced by adopting a calm approach within a group setting, engaging in a leisurely stroll or a visit to a café, as well as participating in a variety of activities available in other establishments, such as retirement homes, schools and kindergartens.«

Table 6: Support systems

All the staff and the residents themselves collaborate to improve the quality of life within the institute through activities like walking, socialising, teamwork, adherence to rules, tolerance and respect and participation in social and sporting events. The concept of quality of life is a complex and multidimensional construct that significantly shapes individuals' perception of their own world and life. The notion of quality of life is expressed in a distinct, unique manner for every individual (Bratković and Rožman, 2006). People with ID receive support through day centres where they can achieve their aspirations. Working in day centres empowers them with a sense of productivity, independence, usefulness and provides them a network of friends (Lačen, 2001). Support for ageing people with ID often depends on the capacity and resources of both governmental and non-governmental organizations, as well as the family and local community. However, these efforts are not sufficient. There is a need for a systematic approach to this issue through comprehensive national policies and legislation. Despite being developed countries, many lack sufficient, high-quality and well-designed policy frameworks that serve as the basis for principles and strategies that ensure that the well-being of people with intellectual disabilities is not compromised (Bigby, 2010, in Wagner et al., 2016).

	Professor of special and rehabilitation pedagogy	Work instructor
According to your observations, what is the most significant and least significant decline in the resident's abilities? Why do you think this is the case?	»Compared to his social skills which remain comparatively stable due to his daily participation in various social activities, the resident exhibits the most significant decline in his literacy abilities. Every day, he uses a computer to write greeting cards, for example. He also sends short text messages via his smartphone and participates in light reading workshops, as well as reading merit badge activities. Despite his daily practice, this is his weakest area.«	»The most substantial decline is apparent in his impaired eyesight, without any other significant changes observed otherwise.«

Table 7: Range of cognitive decline

Professor of special and rehabilitation pedagogy notes that the resident shows less decline in social skills as he is sociable and communicative, and he actively participates in his wider social environment. The work instructor observed a decline in eyesight, while professor of special and rehabilitation pedagogy noted a decline in literacy skills.

The resident only reads and writes in upper case letters as he has forgotten the lower-case letters. His reading and writing of text is slower, less accurate and it is more difficult for him to remember the correct letter. He omits certain sounds or letters in a text, anticipates a word when reading, skips a line, etc. His concentration and focus are also impaired, as reported by the work instructor. The latter states that the resident is often imprecise, too hasty and sloppy in his need to complete the task as quickly as possible. He is involved in various daily workshops to maintain his literacy skills, he is highly motivated to read and write, and has a strong desire to re-learn lower case letters. This area is maintained in various ways (free typing, writing cards and SMS massages, easy reading workshops, reading badges, solving crosswords, rebus puzzles, etc.). Active ageing can be an opportunity to improve health, participation and safety of ageing people and thus their quality of life. The process of ageing is defined in multidimensional terms, as it includes physical, functional, psychological and social components (World Health Organisation Report, 2002, in Boulton-Lewis et al., 2008).

Professor of special and rehabilitation pedagogy		Work instructor
What other ways could be used to promote and maintain the resident's cognitive abilities?	»By maximising involvement in functional learning, lifelong learning, integrated groups, etc.«	»The user's cognitive abilities are maintained through daily activities which need to be varied and interesting, as this engages different areas of the mental processes that keep the individual mentally fit.«

Table 8: Ways to stimulate cognitive abilities

The professor of special education explains that it is important to involve the residents in functional and lifelong learning as often as possible. Daily practice is important and must be based on their intrinsic motivation. The work instructor points out that these skills are maintained through daily activities which need to be varied and interesting. Training sessions that involve several complex cognitive functions at the same time are the most effective. The success of training is then transferred to the everyday activities in which the person is engaged. Training that involves multiple complex functions includes planning, spatial orientation, visual memory, speed of information processing, motor memory, etc. Such activities include board games, attention training, training in multi-task memory techniques and computer-based cognitive training (Silway, n.d.). Training allows the difficulty of tasks to be adjusted and has a positive effect on intrinsic motivation, and its success also carries over to the individual's other lifelong tasks (ibid).

Our research identified the support a person with ID receives in a residential community, and the ways in which their cognitive abilities are maintained. We have explored the support systems and activities available to residents for maintaining and promoting cognitive abilities. The focus on engaging in a variety of activities tailored to the individual's needs was identified and the promotion of learning through everyday activities was highlighted. The research also confirmed the role of developing concentration and focus, learning multi-tasking techniques and integration into the wider social environment. A variety of educational and social support activities are important in maintaining cognitive abilities as they improve the individual's quality of life.

DISCUSSION

The study investigates the determinants of successful functioning of individuals with intellectual disabilities (ID) in residential community, including the ageing process involved. The results demonstrate that individuals with ID receive daily learning and training opportunities aligned with their objectives and schedules, facilitating cognitive function maintenance through a range of activities, such as solving worksheets, playing computer games and art. The resident uses multitasking methods that offer support and encouragement for successful completion of the activities. Additionally, the study highlights the importance of lifelong learning in upholding cognitive abilities in adults with ID. Participating in cognitively stimulating activities such as reading, arithmetic, games, and creative activities has been shown to boost memory, attention, thinking, and reasoning. In addition, lifelong learning reduces the risk of dementia and Alzheimer's disease. Tailoring learning programmes to an individual's characteristics and interests contributes to an enhanced quality of life. Research supports the importance of integrating individuals with ID into society and in lifelong learning programmes to preserve their cognitive abilities. This is how inclusion of people with special needs can be realised and their potential preserved. Professional workers play a crucial role in training and providing support to individuals with ID and promoting their cognitive development and learning. A key component of successful ageing is maintaining one’s cognitive function (Atkinson and Berish, 2003; Hänninen et al., 1996; Salthouse; Smith, 2016, in Imari-Ashley, 2018). Although cognitive decline cannot be entirely prevented, one has the ability to slow down the progression to some extent in order to avoid fast deterioration. This can be achieved through preventative measures and targeted exercises. Cognitive decline can also be slowed down by regulating risk factors, which can be influenced by appropriate activities (Silway, n.d.). Engaging in mental activities can help slow down the cognitive decline or reduces its risk, as it facilitates the growth of new nerve cells and neural connections. Additionally, sensorimotor

activities support and enhance brain plasticity (ibid.). Performing a specific activity triggers the establishment of new neural connections, which is especially significant for individuals with ID. Specific cognitive and motor training can produce changes in the brain. Various cognitive exercises, exposure to the social environment, and the use of dosed stimuli can increase the brain's plasticity, which also allows for greater social inclusion. Exercising multiple complex cognitive functions simultaneously is the most effective and translates into daily life. In the residential community, individuals with ID receive training covering various complex functions, such as planning, spatial orientation, visual memory, information processing, and motor memory, enabling cognitive and social success and a high degree of independence.

Here are some activities that have been confirmed by research to enhance the activation of multiple cognitive abilities simultaneously.

Social games:

Sudoku, mind games, jigsaw puzzles, crochet, knitting, etc., can enhance memory, orientation, focus and thinking.

Enhancing focus

Specific cognitive areas are linked to multiple brain regions. Consequently, the impact of training extends to other areas, including visual perception, memory, auditory perception, and persistence.

Training in memorisation techniques for multitasking or "multitasking"

It is effective in everyday tasks that demand good memory skills (driving a vehicle, fixing appliances, mental arithmetic, participating in traffic), preparing food, employing specific motor skills (cutting, washing and stirring), and sensory perceptions like observing, tasting, and smelling.

Computer – based cognitive training

It is a highly efficient method of stimulating various cognitive perceptual functions and has the advantage of providing immediate feedback on progress.

Such training allows the difficulty of selected tasks to be promptly adjusted and has a positive effect on intrinsic motivation. Successful training translates to better individual performance in daily tasks. For individuals with ID, the following cognitive skills necessitate training and maintenance:

Speaking skills: Speaking skills are crucial for individuals with ID as they aid in vocabulary expansion and overcoming communication difficulties during conversations. Not only do they facilitate memory recall of appropriate words but also enable automatic perception of language and its elements. Furthermore, these skills ensure proper narration and description of everyday events. The person with ID needs to be constantly involved in conversations and provided with speaking situations that match their interests. They may understand the question or the content, but cannot articulate the answer, answering only in monosyllables. When selecting an activity, we need to make sure that it is not too challenging for the person, as this can lead to resistance and a sense of failure. We encourage the 'articulation' of personal moods, opinions and attitudes, and this is where the person with ID has the most difficulty (they often struggle with expressing their emotions and empathising with others, finding it difficult to understand their emotions, and may behave less appropriately as a result). It is necessary to teach them how to give criticism/praise, starting from everyday situations and their individual interests.

Reading skills: Reading with comprehension is important. We begin by focusing on functional texts and messaging. Individuals with intellectual disabilities struggle with reading techniques, such as decoding, and comprehension. Therefore, text comprehension and practical application must be considered. Research has shown that the majority of existing texts are overly complex for them. The use of information technology (searching, selecting, linking and information application) is important to enhance the literacy of adults with ID, providing a motivational tool for acquisition of new knowledge and skills.

Writing skills: The ability to produce texts independently is essential for various communication purposes. We use writing cards, positive thoughts, messages, love letters, recording of experiences or special events, creating reference points, etc. It motivates the person writing about familiar themes. Completing crosswords, rebus puzzles and forms is an important skill that requires understanding instructions and parsing words. In addition, it involves the ability to recall, locate and retrieve information, and make connections and simple inferences. Well-designed rebuses and crossword

puzzles can serve as effective motivational tools to acquire additional skills and enhance literacy. Writing applications for a job, welfare benefits, orders, requests for obtaining documents or cancelling subscriptions (e.g. for newspapers) can be effective but it is often too complex for our residents (except when properly supported by professional workers).
Numeracy skills: The consolidation and acquisition of mathematical/practical skills to address everyday problems is very important. In particular, we emphasise the use of basic arithmetic operations to facilitate practical situations. Experts believe that people with ID do not develop enough systematic problem-solving skills for everyday use (understanding the concepts of time, money, etc.). These skills are necessary but may be too demanding for them. It is important that professional workers prepare them adequately (by planning, etc.). They will also benefit from learning how to buy tickets, parking cards, tickets, drinks, pay parking fees, etc.
Social skills: It is important for people with ID to be able to 'fit in' at work, at a game, at a theatre, in a shop, ordering food on the phone, etc. These skills need to be reinforced through direct experience, as a person with ID has more difficulty adapting socially than others. They are trained to comprehend and respond appropriately to specific social situations (e.g. expressing condolences, reacting to losing a job or accepting a job, expressing congratulations, etc.). These situations are infrequent, yet crucial for both individual and society. We make them aware of their rights and responsibilities in an appropriate and personalised way. Knowing one's rights and responsibilities is essential to maintain one's dignity. They can learn through trial and error, concrete situations, role-playing exercises, etc.

Tasks should be repeated over a period of time to enable memorisation. Persistence and continuity are necessary for successful outcomes. Cognitive decline will be slower if the person with ID is engaged in a variety of leisure activities. Preventive activity is essential as research has shown (Silway, n.d.) that the younger the adult, the higher the success rate of training.

This study provides a better understanding and support for individuals with ID and promotes cognitive function improvement during the ageing process. The findings can serve as a foundation for additional research in this field and the creation of appropriate programmes and interventions to encourage lifelong learning for individuals with ID. The study confirmed that guided engagement in cognitively stimulating activities reduces the risk of academic and social decline, while positively impacting a person's sense of well-being.

CONCLUSION

The research provides a detailed insight into how an elderly individual with ID operates in a residential setting. It highlights the importance of lifelong learning and active participation in daily life to maintain one’s cognitive abilities. It concludes that customised activities and personalisation play a key role in enhancing cognitive functioning of people with ID. Engaging in varied and interesting activities, customised to suit the individual's interests and needs, contributes to the enhancement of their cognitive processes and overall well-being. Lifelong learning is important in retaining and improving the cognitive abilities of elderly individuals with ID. Their involvement in a range of cognitively stimulating activities serve as a stimulus to good mental functioning, improving memory, focus, thought processes and reasoning. In addition, engaging in cognitively stimulating activities reduces the risk of dementia and may have a positive impact on overall well-being and quality of life.

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