Incoming professionals' perspectives on the application of new knowledge in care organisations for people with intellectual disabilities: a concept mapping study

M. C. O. Kersten[1,2] (ID)**, N. Frielink**[1] (ID)**, M. C. D. P. Weggeman**[3] (ID) **and P. J. C. M. Embregts**[1] (ID)

[1]Department of Tranzo, Tilburg School of Social and Behavioural Sciences, Tilburg University, Tilburg, The Netherlands; [2]Dutch Association of Healthcare Providers for People with Disabilities (VGN), Utrecht, The Netherlands; [3]Industrial Engineering & Innovation Sciences, Technical University Eindhoven, Eindhoven, The Netherlands

Objectives: Within care organisations for people with intellectual disabilities, numerous strategies are employed to stimulate the application of new knowledge, and professionals play a key role in this process. Consequently, gaining insight into professionals' perspectives on how to encourage the application of new knowledge is vital, especially in the case of incoming professionals. They have a stronger need for new knowledge due to having acquired only a limited knowledge base about intellectual disabilities in their education. Therefore, this study focused on the incoming professionals' perspectives on factors stimulating application of new knowledge within the care and support for people with intellectual disabilities.
Methods: A concept mapping study was conducted with incoming support staff, psychologists, and intellectual disabilities physicians. Data collection included brainstorming, pile sorting and rating to create three concept maps, which were interpreted by experts.
Results: Overall, the participants generated 234 statements. Incoming support staff primarily expressed their preference for experiential and work-based learning and described their role as being knowledge receivers. Incoming psychologists and physicians expressed their ownership of knowledge in requesting opportunities to develop themselves.
Conclusion: To enhance incoming professionals' application of new knowledge, care organisations for people with intellectual disabilities can encourage professionals in manifold ways, ranging from providing (in)formal learning opportunities and accessible sites to creating a learning culture.

Keywords: Knowledge application; incoming professionals; intellectual disabilities; care organisations; knowledge management; learning strategies; concept mapping

Introduction

To optimise the quality of life of people with intellectual disabilities, knowledge is vital for professionals working for this population (Cobigo *et al.* 2014, Schepens *et al.* 2019), such as support staff, psychologists and Intellectual Disability (ID) physicians. The application of knowledge refers to how professionals utilize their information, experience, skills, and attitudes when performing their tasks (Weggeman 2007). In addition to utilizing their prior knowledge, professionals also engage in the development of new knowledge through their daily work practices, as well as acquiring new knowledge through various means like training and coaching. Professionals working with individuals with intellectual disabilities – including support staff, psychologists, and ID physicians – must possess a broad range of knowledge across multiple domains to effectively provide lifelong and life-wide care and support. This knowledge should encompass legislation related to care and support, as well as the core domains of quality of life. These domains include physical well-being,

which necessitates knowledge about health issues, and social participation, which requires awareness of opportunities for participation within the local community, among other areas, such as emotional well-being, educational and vocational support (Schalock *et al.* 2008, Herps *et al.* 2016). This knowledge comprises multiple sources: evidence-based practices, professional expertise, and the experiential expertise of service users and their relatives (Embregts 2017). To ensure that care and support are grounded on these knowledge sources, it is recommended to engage various disciplines, including support staff, psychologists, and (para)medics, as well as service users and their families, in the planning and provision of individual support and planning (Herps *et al.* 2016). By integrating these knowledge sources, professionals can develop new knowledge through on-the-job learning, training, or coaching. To stay up-to-date and deliver high-quality care, professionals need to integrate new knowledge into their daily work practices and regularly update their knowledge (Greenhalgh *et al.* 2004, Augustsson *et al.* 2019). Simply relying on existing knowledge is no longer adequate in the long-term care sector due to factors such as increased complexity of service users, research and innovation, and changing contexts such as longer home stays and greater collaboration with service users and their relatives (Van Dijk *et al.* 2021). Regarding the acquisition and application of new knowledge, research within the field of healthcare in general (e.g. Pentland *et al.* 2011, Karamitri *et al.* 2017, Birken and Currie 2021) has underscored the key role played by professionals themselves, such as the presence of skills and motivation. Moreover, this research has demonstrated the pre-conditional role of environmental factors, including its management, such as an open culture and the facilitating role of management.

Likewise, both Ramerman *et al.* (2018) and Overwijk *et al.* (2021) have demonstrated that the sharing and application of new knowledge among incumbent professionals in the Dutch care and support for people with intellectual disabilities is also influenced by both professional and environmental factors. Professional factors, such as knowledge and skills, and environmental factors, such as management decisions regarding policy, recruitment and resource allocation, both play a role in facilitating the sharing and application of knowledge. Organisations execute strategies aimed towards locating, retrieving, sharing, adapting and utilising new knowledge to promote organisational objectives (Karamitri *et al.* 2017). How Dutch care organisations for people with intellectual disabilities fulfil their important preconditional role of acquiring and applying new knowledge for professionals has been the subject of recent investigation (Kersten *et al.* 2022a). This research highlighted the existence of a broad spectrum of strategies employed by Chief

Executive Officers (CEOs) to encourage the sharing and application of knowledge within care organisations for people with intellectual disabilities, with a special focus on talent development and the acknowledgment and deployment of knowledge holders. These strategies seek to enhance both basic and specific knowledge and competencies, such as the requisite knowledge about the complex care needs of service users (with behaviours that challenge). Due to both the shortcomings of vocational education and a tight labour market, care organisations for people with intellectual disabilities primarily hire persons with little knowledge of intellectual disabilities care and support. These persons include, for example, career switchers or young professionals who recently completed their vocational education (Kersten *et al.* 2022a). Therefore, as indicated in this study, incoming professionals both require additional attention and are of special interest in terms of talent development when it comes to the strategies executed by care organisations for people with intellectual disabilities in order to share and apply new knowledge. Examples of such strategies are: 'Curriculum for specific target groups, new staff and unqualified staff', 'Coaching teams' and 'Key role for psychologists as knowledge holders in knowledge transfer'.

Although numerous strategies for encouraging the sharing and application of knowledge have been carried out by CEOs, evidence-based work in long-term healthcare, including the care and support for people with intellectual disabilities, is not a common practice (Burton and Chapman 2004, Kaiser and Mcintyre 2010, Nicolini *et al.* 2008). This means a risk firstly, that the effective interventions developed by researchers are not being sufficiently applied in practice and, secondly, that the quality of practice-based knowledge used by professionals is unknown (World Health Organization 2006, Zorginstituut Nederland 2016). Hence, there is a gap between what is known and what is actually being done (Drahota *et al.* 2016), which poses a threat to the quality of care (Zorginstituut Nederland 2016). In order to bridge this gap, insights into the factors facilitating knowledge application within care organisations for people with intellectual disabilities are required, especially those from the perspective of the incoming professionals themselves. Indeed, the latter is vital because the aforementioned strategies, such as 'Curriculum for specific target groups, new staff and unqualified staff', 'Coaching teams' and 'Key role for psychologists as knowledge holders in knowledge transfer', aim to strengthen the key roles that professionals fulfil with respect to knowledge in their daily work: as users, receivers, holders and producers of knowledge (Kersten *et al.* 2022a). To ensure that incoming professionals will be sufficiently stimulated to apply new knowledge, it is important to explore whether these strategies are in

accordance with these incoming professionals' perspectives.

Until now, there have only been initial insights into the perspectives of professionals themselves concerning the factors that encourage knowledge application. For example, a study examining knowledge application by administrative and support staff within Canadian long-term care homes provides information on the vital role played by organisational leaders (including clinical leaders) as well as environmental factors, such as resources and culture (Berta *et al.* 2010). In the context of intellectual disabilities care, Olsson and Gustafsson (2020), who administered a survey amongst staff supporting people with intellectual disabilities in either group homes or their own homes in Sweden, recommended that organisations should provide workplace training to enhance the skills of incoming professionals. Such workplace training would supplement the basic knowledge on intellectual disabilities that professionals acquire within their education with the specific knowledge needed to carry out their daily work. Nijs and colleagues (2022) indicated that Dutch professionals with different levels of education (support staff versus psychologists) each have their own perspectives on how to improve support for people with intellectual disabilities with behaviours that challenge. In order to accommodate their specific respective needs, it is therefore crucial to learn more about the perspectives of several groups of professionals with regard to how best to encourage the application of new knowledge. This is particularly relevant for incoming professionals such as support staff, psychologists and ID physicians as their educational knowledge base about intellectual disabilities may need updating (Olsson and Gustafsson 2020, Van Dijk *et al.* 2021). However, in some situations the content of their educational knowledge base will be more innovative than in the organisation where they started to work. In that case, incoming professionals' need of new knowledge involves 'old' knowledge applied in their daily practices. To the best of our knowledge, there has been no prior research on incoming professionals' perspectives regarding how their organisations can facilitate the application of new knowledge in the field of intellectual disabilities. This highlights a gap in existing knowledge about how care organisations can encourage incoming professionals to apply existing/available and newly learned knowledge in their work. Therefore, in this study, we investigated the perspectives of incoming support staff, psychologists, and ID physicians on the factors stimulating the application of new knowledge within the care and support for people with intellectual disabilities.

Methods
Study setting
In the Netherlands, most of the 142,000 citizens with intellectual disabilities receive specialised services from approximately 170 public charitable care organisations, varying from a few dozen service users and staff to over 10,000 service users and staff (Vereniging Gehandicaptenzorg Nederland 2019). While some care organisations operate nationwide, however, most operate at the regional level and have multiple locations. To address the varying needs of their service users, they offer a broad range of services, including medical and psychological treatment, care, and support in all areas of quality of life. The professionals working at these care organisations include support staff, psychologists, ID physicians, physiotherapists, dietitians, and speech and language therapists, with education levels ranging from lower vocational education to university level (38% lower level, 50% middle level, and 42% higher level) (Van Driesten and Wessels 2020).

Study design
In order to explore the perspectives of incoming professionals regarding how their organisations could stimulate the application of new knowledge, a concept mapping study was conducted, which is a computer-assisted integrated mixed-method approach (Trochim 1989). Concept maps allow for a clearer understanding of the relationships and patterns between the statements given by the participants, making it easier to identify key themes and concepts. Through the integration of group processes and multivariate statistical analyses (Trochim and Kane 2005), this method enables researchers to elucidate a complex subject within a short space of time. Moreover, it proves expedient for integrating the tacit knowledge of different groups of professionals (van Bon-Martens *et al.* 2017). The concept mapping procedure has already been successfully applied within healthcare research (e.g. van Bon-Martens *et al.* 2017, de Boer *et al.* 2019), including within research on intellectual disabilities care (Lokman *et al.* 2022, Nijs *et al.* 2022, Ruud *et al.* 2016).

Participants
In total, 20 participants took part in this study. As five participants per subgroup are suggested as the minimum to produce meaningful data (Kane and Trochim 2007), this number of respondents was deemed to be sufficient for the present concept mapping study. By including three key types of incoming professionals – incoming support staff, psychologists, and ID physicians – we aimed to capture a comprehensive view on care, support, and treatment of service users. These professionals represent a wide range of vocational levels required to cater to the needs of almost all service users. The participants were involved with ten care organisations for people with intellectual disabilities in the Netherlands and were all beginners in their professional field, which we define as either having only recently finished their vocational education or as having switched careers and been working within care organisations for people with intellectual disabilities for a period of six months to

three years. Although the development towards professional maturity is, at least in part, dependent upon previously acquired competences and therefore differs for each person, according to experts it is common practice within care organisations for people with intellectual disabilities to consider professionals to be beginners up to three years' time.

The participants can be categorised into three groups of incoming professionals: support staff ($n = 5$), psychologists ($n = 9$), and ID physicians ($n = 6$). All the participants had been working in the care and support for people with intellectual disabilities with complex care needs, including people with mild or severe intellectual disabilities with behaviour that challenges and people with profound intellectual and multiple disabilities, for a period of six months to three years. Therefore, we were able to include professionals that we expected would strongly require new knowledge, that is, specific knowledge related to their daily work, to supplement the generic knowledge acquired in their education. The average work experience of the participants in their current job was 0.9 years for ID physicians (range 0.5-1.8 years), 1.3 years for support staff (range 0.7-2.3 years), and 1.7 years for psychologists (range 0.6-2.8 years). Table 1 provides an overview of additional demographic characteristics of the participants.

Procedures

After the Ethics Review Board of Tilburg university granted ethical approval to conduct the study (RP332), the first author drew up a list of potential care organisations for people with intellectual disabilities to contact to recruit participants. In order to include a diverse sample, these organisations were selected based on their size, both in terms of employees and service users (four of them served 1,000-2,000 service users, two served 2,000-5,000, two served 5,000-7,000 and two served over 7,000 service users), their identity and geographical location (three were located in the north of the Netherlands, four in the south and four were located in the middle). After selecting these ten care organisations for people with intellectual disabilities, intermediaries (like a manager or a policymaker responsible for the knowledge strategy within the organisation) were informed about the aim of the present study and asked to cooperate. All intermediates were willing to

cooperate and contacted the managers of potential locations within their organisations to select professionals to participate in the study. The managers checked which of their employees matched our inclusion criteria. When the professionals gave consent for their contact details to be disclosed, we contacted the professionals to invite them to participate in this study. All the participants agreed to participate and provided written informed consent.

Concept mapping procedure

In concept mapping, a participatory approach is used, which comprises five consecutive steps: (1) preparation; (2) brainstorming to gather statements; (3) prioritising and clustering of these statements; (4) statistical analysis; and (5) interpreting the concept maps (Trochim 1989).

Step 1: Preparation. In a concept mapping process, the focus sentence is key to the data generation, since the participants are requested to respond to this sentence (Trochim 1989). For the purpose of the current study, the following sentence was chosen by the research team: 'In order to stimulate me and other care professionals to apply new knowledge, my organisation can …', which aimed to identify the organisational factors that influence the application of new knowledge by professionals. This focus sentence was based on insights from previous studies highlighting the conditional role of healthcare organisations (Birken and Currie 2021, Karamitri *et al.* 2017, Overwijk *et al.* 2021, Pentland *et al.* 2011, Ramerman *et al.* 2018, Kersten *et al.* 2018). By using this focus sentence, we aimed to explore the crucial role of organisations and provide greater insight into the perspectives of incoming professionals, which has not been studied previously. Prior to the data collection, the first author conducted a pilot using this focus sentence. In individual online interviews, a representative from each group of participants was asked to (1) finish the predefined focus sentence in as many ways as possible, and (2) to evaluate this task. Since their evaluations verified the clarity and applicability of the task, the focus sentence remained unchanged.

Step 2: Brainstorming to gather statements. In the second step, the perspectives of incoming professionals on how care organisations for people with intellectual disabilities can encourage the application of newly learned knowledge were gathered. Our focus was on support staff, psychologists, and ID physicians who had been working in these organisations for a period of six months to three years. Given that face-to-face focus groups were not appropriate due to COVID-19 restrictions in the

Table 1. Demographic characteristics of the participants, divided into incoming support staff, psychologists and ID physicians.

	Incoming support staff ($N = 5$)	Incoming psychologists ($N = 9$)	Incoming ID physicians ($N = 5$)
Gender			
Male	3	9	2
Female	2		4
Age	42 years (range: 22-54)	28.7 years (range: 24-37)	31.6 years (range 29-35)
Years of experience in current job	1.3 (range: 0.7-2.3)	1.7 (range: 0.6-2.8)	0.9 (range: 0.5-1.8)

Netherlands at that juncture (April to September 2021), online focus groups were organised on MS Teams. A separate online focus group was organised for each profession, resulting in a total of 3 online focus groups. First, a researcher explained the concept mapping procedure. Next, the participants provided their perspectives on the focus sentence. One researcher supervised the focus groups without engaging in the discussion, while a second researcher wrote down the answers to the focus sentence in an MS Excel sheet. Also, the second researcher performed multiple member checks during the focus group meeting by sharing his screen and inviting the participants to provide feedback concerning both the accuracy and completeness of the way in which their answers were formulated. Duplicate statements were only included once. The focus groups were video recorded using the record function in MS Teams.

Step 3: Prioritising and clustering of statements. In the third step, the participants were invited to perform an individual task, which involved prioritising and clustering all the statements deriving from the focus group they attended. To this end, all the statements from each focus group were incorporated into the software program Groupwisdom™ (Concept Systems Incorporated 2021). Several days after the online focus groups, the incoming support staff, psychologists, and ID physicians received an e-mail containing an explanation of both tasks along with a personal link to carry out these tasks individually on their computer. The participants were asked to complete the tasks within a two-week period. After two weeks, a reminder e-mail was sent. In conducting the tasks, the participants were first invited to rate the various statements generated in their focus group on a five-point Likert-scale (ranging from 1 = most important to 5 = least important). Second, in the clustering task, the participants were asked to group all the statements based on the content of each statement when, according to the participants, they belonged to the same topic. The Groupwisdom™ software limits the maximum number of clusters to ten.

Step 4: Statistical analysis. Next, Groupwisdom™ combined all individually prioritised and clustered statements into a group product for each participant group. Using multidimensional scaling analysis, this program generated visual concept maps for each group of incoming professionals (see Figures 1–3). Within the analysis, statements that were frequently sorted together by the incoming professionals were located closer to each other on the map. A hierarchical cluster analysis was then applied to group similar concepts together into clusters. The optimal number of clusters was explored by two authors, considering 4-12 clusters and merging them until a sensible structure was achieved. Also, the clusters are divided over an x- and y-axis; their ends represent a different content of clusters. Finally, Groupwisdom™ calculated the average ratings given in the prioritizing task to determine the relative importance of the statements and clusters (Kane and Trochim 2007, Trochim 1989).

Step 5: Interpreting the concept maps. Finally, in two online group discussions, five experts interpreted the three concept maps based on the focus sentence. All experts were involved in knowledge processing: a manager of a training centre in a care organisation for people with intellectual disabilities, a staff member of the care policy department of a care organisation for people with intellectual disabilities, two consultants working on learning innovations within profit and non-profit organisations and on behaviours that challenge in intellectual disabilities care, respectively, and an experienced scientific researcher specialising in intellectual disabilities care. They collectively discussed the content of each cluster until a consensus was established, after which they then labelled them. These sessions were moderated by two of the researchers. Afterwards, all the authors discussed the labels of all clusters as well as the axes.

Results

In total, 234 statements were gathered over the course of the three focus groups. An overview of the statements is provided in Appendix 1. Incoming support staff, psychologists, and ID physicians generated 66, 100 and 68 statements, respectively. These statements were grouped into clusters and visualised in concept maps. A map was created for each group, with Figure 1 dedicated to incoming support staff, Figure 2 to incoming psychologists, and Figure 3 to incoming ID physicians. These visual maps allow for a clearer understanding of the relationships and patterns between the statements, making it easier to identify key themes and concepts. Table 2 provides an overview of both the clusters generated by the three participant groups and their average ratings in the prioritising task. The clusters are based on how the participants individually prioritised and clustered all the statements; the labels were provided by the expert group. Below, the clusters for each concept map are presented in descending order of importance.

Concept map for incoming support staff

The 66 statements provided by the incoming support staff were grouped into five clusters, which are visualised in a concept map (Figure 1). In stimulating themselves and other professionals to apply new knowledge, the incoming support staff considered 'gaining inspiration through stories and enriching experiences' (cluster 4, 8 statements) to be the most important. This suggestion aimed at motivating professionals' knowledge application by providing knowledge in an accessible and inspiring way and encouraging that it be shared, by, for example, visualising success stories in images, so that they come to live more (statement 62 in Appendix 1), or through experiential learning (such as eating in a restaurant in the dark to experience what it is like to be blind) (statement 61 in Appendix 1). The second most important cluster is 'integrate the sharing of experiences and knowledge into the daily work rhythm' (cluster 3, 16 statements). This cluster focused on the teams of professionals who collaborate to support service users together. The incoming support staff indicated that it is important for organisations to encourage the sharing of new knowledge and multidisciplinary experiences within team meetings, which they indicated as a vital precondition for knowledge application, and to offer a team development programme that
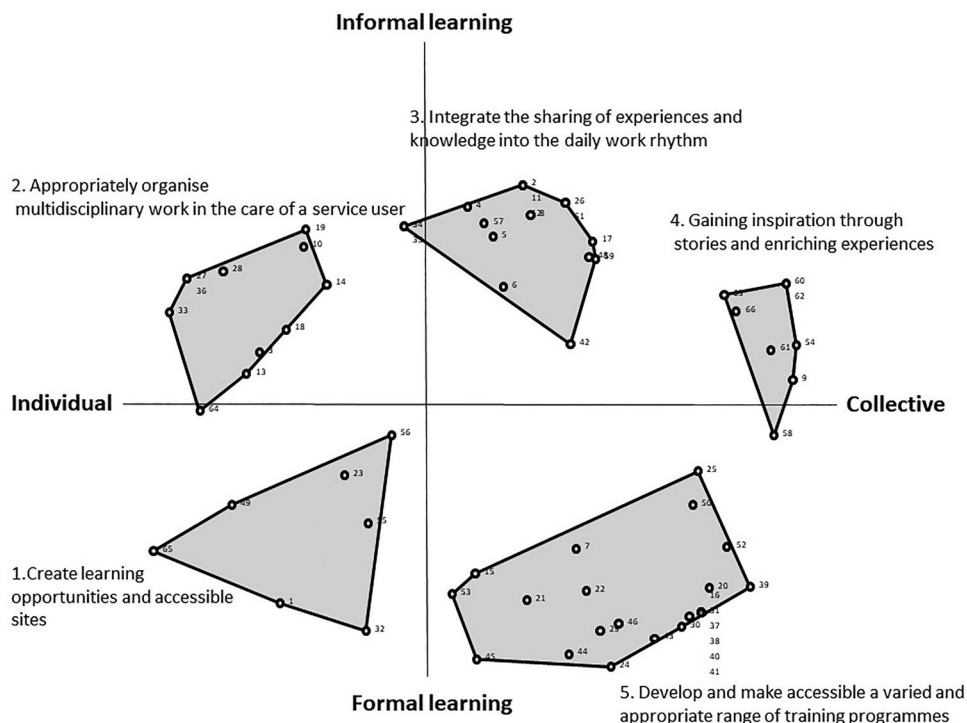
Figure 1. Concept map of incoming support staff. The cluster titles in the figure correspond to the cluster numbers listed in Table 2.
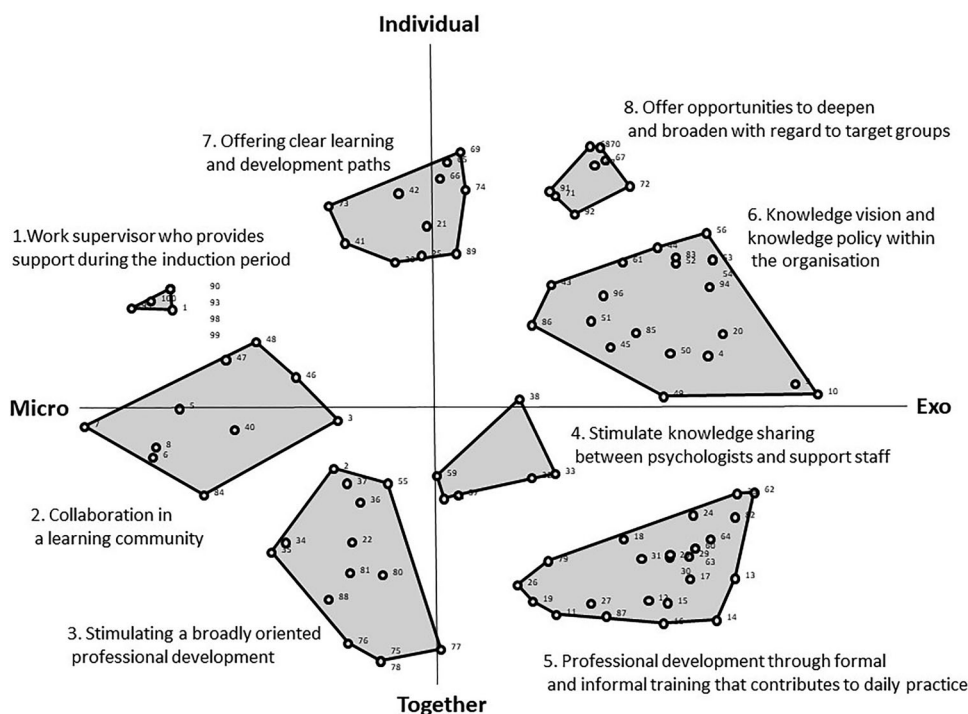

Figure 2. Concept map of incoming psychologists. The cluster titles in the figure correspond to the cluster numbers listed in Table 2.

includes reflecting on the team's own actions and facilitating team learning (statements 2, 5, 11, 42 and 51 in Appendix 1).

The third most important cluster is cluster 5 (24 statements): 'develop and make accessible a varied and appropriate range of training programmes', which described features and facilitators of both internal and external courses. Concerning features, the incoming support staff pointed to offering a wide range of both e-learning and live training courses that meet the needs of both service users (like diabetes) and professionals (e.g., statements 7, 29, 30, 38 and 39 in Appendix 1).
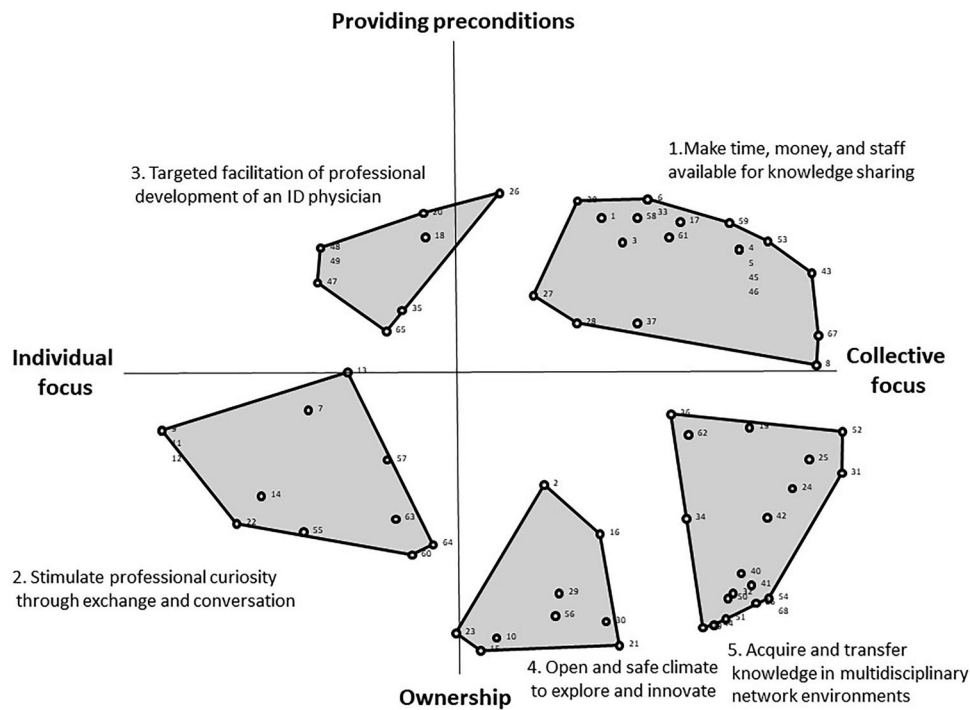
Figure 3. Concept map of incoming ID physicians. The cluster titles in the figure correspond to the cluster numbers listed in **Table 2**.

Table 2. Clusters and their average rating for each respondent group.

Cluster number	Incoming support staff	Incoming psychologists	Incoming ID physicians
1	Create learning opportunities and accessible sites (4.26)	Work supervisor who provides support during the induction period (4.06)	Make time, money and staff available for knowledge sharing (3.81)
2	Appropriately organise multidisciplinary work in the care of a service user (4.56)*,**	Collaboration in a learning community (3.94)*	Stimulate professional curiosity through exchange and conversation (3.54)*,**
3	Integrate the sharing of experiences and knowledge into the daily work rhythm (4.12)*	Stimulating a broadly oriented professional development (3.29)	Targeted facilitation of professional development of ID physicians (3.29)*
4	Gaining inspiration through stories and enriching experiences (3.97)*	Stimulate knowledge sharing between psychologists and support staff (3.50)*	Open and safe climate to explore and innovate (3.80)*
5	Develop and make accessible a varied and appropriate range of training programmes (4.17)*	Professional development through formal and informal training that contributes to daily practice (3.86)*	Acquire and transfer knowledge in multidisciplinary network environments (3.80)*
6		Knowledge vision and knowledge policy within the organisation (3.84)*	
7		Offering clear learning and development paths (3.35)	
8		Offer opportunities to deepen and broaden with regard to target groups (3.68)	

Explanatory notes: Rating on a five point Likert-scale (ranging from 1 = most important to 5 = least important); * Other disciplines are involved; ** Service users (council) and/or relatives council are also involved.

With regard to facilitators, providing time, budget, accessible information, and procedures (for example statements 20, 24, 37 and 45 in Appendix 1) were mentioned. According to the incoming support staff, the fourth priority is cluster 1 (7 statements), which was labelled as 'create learning opportunities and accessible sites'. This cluster pertained to statements about stimulating a learning attitude (statement 1, Appendix 1) and motivating people to acquire knowledge (such as by facilitating time to follow courses; statement 32, Appendix 1) as well as making information (knowledge) easy to find (statement 55, Appendix 1). Both these aspects are strongly related to one another. That is to say, in order to engage with learning opportunities,

sites providing accessible information are required, while without organisations motivating support staff to learn, they will not go to the sites were information can be found. Finally, the incoming support staff stressed the need to 'appropriately organise multidisciplinary work in the care of a service user' (cluster 2, 11 statements). On the one hand, this cluster consisted of statements related to multidisciplinary cooperation, like stimulating open communication between all persons involved (support staff, ID physicians, managers, psychologists, and service users; statement 3, Appendix 1) and the multidisciplinary development of treatment plans grounded in the same vision (statement 18, Appendix 1). On the other hand, the statements in this cluster related to providing organisational preconditions for such cooperation. This involved, amongst other things, creating more space and energy for acquiring and applying new knowledge by paying greater attention to time pressure/work pressure (statements 27, 28 and 36 in Appendix 1).

As illustrated by the lines in the concept map (Figure 1), all the clusters are centred around an x- and y-axis, which indicate their focus. While the x-axis ranges from a focus on individual support staff to a focus on their collective (i.e. the teams in which they collaborate), the y-axis distinguishes between informal learning and formal learning.

Concept map for incoming psychologists

The incoming psychologists provided 100 statements, which were subsequently grouped into eight clusters and visualised in a concept map (Figure 2). When organisations encourage the application of new knowledge by incoming professionals, the most important thing for this respondent group was 'stimulating a broadly oriented professional development' (cluster 3, 14 statements). This cluster pointed to broadening the horizon of incoming professionals, by, for example, encouraging them to both participate in their departments (statement 81, Appendix 1) and register with a professional association (statements 75 and 76 in Appendix 1). Besides encouraging and stimulating professional development, the incoming psychologists requested greater facilitation in the sharing of knowledge, which, in turn, would increase the knowledge they are able to apply (e.g., statements 34, 36 and 37 in Appendix 1). The second most important priority reported by incoming psychologists was 'offering clear learning and developmental paths' (cluster 7, 11 statements), which is related to explicating their organisations' vision on their professional development. In other words, the incoming psychologists indicated that it is important for organisations to give insight into both the knowledge that incoming professionals and professionals with greater work experience are expected to possess (statements 21, 25 and 39 in Appendix 1) and the

caseload during the induction period (for example, that should not be too large and should be limited to a smaller target group; statements 65 and 66 in Appendix 1). In third place, the incoming psychologists prioritised 'stimulate knowledge sharing between psychologists and support staff'(cluster 4, 6 statements), which underscored the importance of both meetings and digital channels for knowledge facilitation and encouragement to increase the knowledge base of all professionals involved. For example, an organisation can provide space for knowledge exchange (statement 32, Appendix 1), which, in turn, can lead to the creation of new knowledge (statement 57, Appendix 1), and encourage incoming psychologists to help support staff in sharing their knowledge (by encouraging them to take ownership; statement 58, Appendix 1), which is a precondition for improved knowledge application.

This is followed by 'offer opportunities to deepen and broaden with regard to target groups' (cluster 8, 8 statements), which pertained to supporting incoming professionals' autonomy in learning by providing the conditions needed to help them develop a preference for a specific target group. For example, the organisation could provide opportunities to identify incoming professionals' preferences and help them choose a target group to work with (statement 67, 68 and 70 in Appendix 1). The fifth most important point is 'knowledge vision and knowledge policy within the organisation' (cluster 6, 20 statements), which concerned the incoming psychologists' need for clear guidelines, frameworks, a vision, and a learning culture. Also, they suggested making relevant tools, methods, procedures, and the distribution of responsibilities accessible, for example, by providing insight into the roles and positions of the care manager or team leader (statement 52, Appendix 1). The sixth most important priority for the incoming psychologists is 'professional development through formal and informal training that contributes to daily practice' (cluster 5, 24 statements). With respect to its content they suggested, for example, considering which knowledge is important for which discipline, and when (statement 18, Appendix 1). Moreover, they highlighted what they deemed to be enabling conditions for professional development, namely providing opportunities for support staff to be trained by the psychologists (statement 30, Appendix 1) and to support them with the practical skills they have yet to learn (sufficiently) in their training, such as conversational techniques, positioning within teams and gaining authority (statement 64, Appendix 1).

The seventh priority cited by the incoming psychologists is 'collaboration in a learning community' (cluster 2, 10 statements). They indicated that such a learning community would offer opportunities to not only learn from their direct colleagues (i.e. psychologists) but also from involved support staff. Elaborating on this, the

incoming psychologists noted that facilitating support staff in their role as a knowledge holder, more specifically, facilitating and encouraging a sense of ownership amongst them and take into account the amount of information support staff can process (like during COVID-19) (statements 5–8 in Appendix 1). Finally, the incoming psychologists expressed their need for 'a work supervisor who provides support during the induction period' (cluster 1, 7 statements). This supervisor was described as someone who is readily available and reliable, and who incoming psychologists can check with to ensure they are using the correct working method (statement 90, 99 and 100 in Appendix 1). In other words: to assist them to accurately applying newly acquired knowledge.

As Figure 2 visualises, the clusters generated by the incoming psychologists range from both a micro-level focus (i.e. primary process) to an exo-level focus (i.e. organisation, the level in between the micro- and macro-level; x-axis) and a focus on individual professionals to professionals working together (y-axis).

Concept map for incoming ID physicians

Five clusters were formed based on the 68 statements generated by the incoming ID physicians. With respect to stimulating the application of new knowledge, the 'targeted facilitation of the professional development as an ID physician' (cluster 3, 8 statements) was considered to be the most important factor for them. According to the incoming ID physicians, this involved a set of preconditions for their professional work. Besides pointing to knowledge sources (such as the availability of a library, statement 49, Appendix 1), they underscored the importance of enlarging their occupational group and provided suggestions for how to do so, such as creating more assignments for training future professionals and encouraging more trained people to come into the profession (statements 18 and 20 in Appendix 1). The second-ranked priority for the incoming ID physicians is the cluster 'stimulate professional curiosity through exchange and conversation' (cluster 2, 12 statements). They indicate that it is important that care organisations for people with intellectual disabilities encourage incoming professionals to keep an open mind with respect to issues concerning the service users and to facilitate the exchange of knowledge and ideas in team meetings and between different organisations (statements 14, 55 and 60 in Appendix 1). In addition, with respect to stimulating professional curiosity, besides professionals, the contribution of service users was also highlighted in several statements. For example, the suggestion to let support staff and service users discuss the wishes/needs of service users together (statement 11, Appendix 1).

Next, the incoming ID physicians prioritised the following: 'stimulate an open and safe climate to explore and innovate' (cluster 4, 9 statements). This stresses the importance of a safe environment in which uncertainties, problems and errors can be discussed (statements 10 and 15 in Appendix 1). In addition, they suggested fostering an innovation climate, which invites incoming professionals to reflect on their own actions and, in so doing, identify where improvements are needed (statement 16, Appendix 1), alongside greater cross-pollination between organisations (statements 29 and 56 in Appendix 1). Cluster 5, 'acquire and transfer knowledge in multidisciplinary network environments' (19 statements) was deemed to be of equal importance as cluster 4. Both clusters are in line with each other and concern both incoming ID physicians and other disciplines. While cluster 4 focuses on the working climate, cluster 5 is primarily related to enabling preconditions within their own organisation by providing an overview of the available expertise and encouraging and facilitating the development, sharing and application of knowledge. This would involve, for example, setting up a knowledge network or a joint outpatient clinic of ID physicians with psychologists (statements 39 and 41 in Appendix 1). In this way, they could complement each other, give feedback, and learn a lot from each other.

The final cluster of the incoming ID physicians is labelled 'make time, money and staff available for knowledge sharing' (cluster 1, 20 statements). According to incoming ID physicians, it is important for care organisations for people with intellectual disabilities to facilitate their sharing of knowledge, so that they would have more knowledge to apply. This concerned a variety of preconditions, such as entering into partnerships with other organisations where their own expertise can be deployed (statement 28, Appendix 1), providing efficient work processes and good supportive ICT and office facilities (such as electronic client files) in order to create more space for knowledge application (statement 6, Appendix 1), and letting managers actively encourage employees to develop and facilitate this (statements 58 and 59 in Appendix 1).

The concept map for the incoming ID physicians (see Figure 3) distinguishes between an individual focus and a collective focus (x-axis). In addition, on the y-axis, providing preconditions for the stimulation of incoming professionals' application of knowledge (i.e. the role of the organisation) is contrasted with ownership (i.e. their own commitment and role).

To summarise, the concept maps for incoming support staff, psychologists and ID physicians display various clusters of factors that highlight the different ways in which their organisations can encourage them to apply their newly learned knowledge within their jobs. These clusters encompass individual and collective learning, as well as internal and external environmental factors.

Discussion

This study explored the perspectives of incoming support staff, psychologists and ID physicians on factors

stimulating the application of new knowledge within the care and support for people with intellectual disabilities by using the concept mapping method. For each participant group, a concept map was composed based on their jointly generated statements, which they then prioritised and clustered individually.

Examination of the concept maps of the three groups of incoming professionals shows their similarities. They all mentioned factors relating to both individual and collective learning, with the latter both including mono- and multidisciplinary learning. More specifically, they all referred to ways in which both their own and their teams' ability to learn, share and apply new knowledge are likely to increase. Together, their concept maps also encompass a broad spectrum of stimulating factors, ranging from (1) providing tailored learning opportunities, (2) providing accessible sites, tools, and platforms to share knowledge, (3) stimulating motivation and ownership, (4) providing conditional resources like time, space, and budget, and (5) a stimulating environment with an open and safe climate and supporting structures (like multidisciplinary consultation). The heterogeneity of factors stimulating the application of new knowledge is in accordance with Kersten *et al.*'s review (2018), who distinguished between three main clusters of factors, namely characteristics of the intervention, persons and the organisational context. Given that the incoming professionals mentioned both formal (such as training) and informal channels (like work-based learning), we recommend that care organisations for people with intellectual disabilities pay attention to the character of the learning opportunities (i.e. formal versus informal learning) and provide a mixture of formal and informal channels. Although formal learning is still common practice, research indicates that informal learning connects better with the learning style of support staff in intellectual disabilities care (Gormley *et al.* 2020). Informal learning belongs to the factors that aim to affect the personal characteristics of professionals on an individual level, by stimulating their motivation to learn. Alongside this, the incoming professionals also cited factors at the organisational level that foster a stimulating context such as knowledge, financial resources, a learning culture and tailored learning opportunities. This combination of factors influencing both personal characteristics and the context is consistent with the need for a knowledge application capacity, which Berta *et al.* (2010, p. 1) defined as 'the absorptive capacity to effect change through learning', referring to the ability of an organisation to recognize the value of new, external information, assimilate it and apply it. Taking into account that this combination of factors is required to stimulate knowledge application is likely to prove beneficial for the attempts of care organisations for people with intellectual disabilities' to improve their knowledge application capacity.

A comparison of the three concept maps, including their axes, displays a second similarity between the three groups of incoming professionals, as well as differences between them. Like expressed by the labels of the axes, they all indicated that stimulating knowledge application requires individual and collective learning as well as organisational resources, both at the micro and organisational level. This is consistent with a review of Muller-Schoof and colleagues (2021), in which factors influencing caregivers' learning in nursing homes were identified. They also concluded that this involves individual learning, collective learning and resources. However, in that study, no levels to which the resources belong (micro- or organisational level) were specified. Besides these similarities, there were also differences between the three concept maps corresponding to the specific needs highlighted by the incoming professionals concerning a stimulating organisational context, and reflect how they perceive their own role. Specifically, this difference concerns incoming support staff versus incoming practitioners (i.e. psychologists and ID physicians). The incoming support staff appeared to define themselves primarily as knowledge receivers and expressed a lack of ownership over their knowledge, requested both informal and formal modes of learning, focusing on both individuals and their teams. In accordance with their preference for informal learning, they also mainly reported the enabling conditions in their daily work (i.e. at the micro-level), such as integrating the sharing of experiences and knowledge within their daily work rhythm, which would enable them to apply more knowledge. This is consistent with results of Nijs *et al.* (2022), who conducted a concept mapping study amongst service users, experienced support staff and psychologists on how to improve the support for people with intellectual disabilities with behaviours that challenge. They found similar needs from support staff, such as a need for knowledge, skills, and attitudes, coaching, reflection and a sense of feeling supported and appreciated by means of a reduced workload and the availability of additional expertise. Moreover, these authors established that experienced psychologists perceive support staff as knowledge holders, just as the incoming psychologists in our study indicated.

Furthermore, we found that both incoming psychologists and incoming ID physicians displayed their ownership (i.e. as a knowledge holder) by sharing their knowledge with support staff. These incoming professionals requested opportunities to develop themselves both in the internal (micro- and exo-level) and in the external context (macro-level). For example, they noted being encouraged to register with a professional association in order to extend their own knowledge base and identify knowledge relevant for their organisation such as a new diagnostic method. In this respect, they can be

said to perform a so-called boundary spanning role, which Greenhalgh *et al.* (2004) argue is beneficial for adopting innovations insofar as it allows these professionals to identify new knowledge. Finally, the vital role played by clinical leaders, identified by Berta *et al.* (2010), was mainly noted by the incoming psychologists in our study when expressing the need for a supervisor. Regarding the internal context, especially ID physicians requested more assignments for training future professionals. Although there were similarities, the three groups of incoming professionals all expressed distinct needs, we recommend adopting a customised approach for each group of incoming professionals in order to stimulate their application of new knowledge.

When examining the clusters of factors reported by the incoming professionals, combinations of the four main strategies employed by CEOs to stimulate the sharing and application of knowledge in care organisations for people with intellectual disabilities were identified: providing organisational conditions for effective knowledge processes; focusing attention on talent development; acknowledging and deploying knowledge holders, and knowledge-driven participation in collaborative partnerships (Kersten *et al.* 2022). For example, providing sites, tools, and platforms through which to share knowledge is part of the strategy related to effective knowledge processes, while encouraging motivation and a sense of ownership relates to talent development. Interestingly, the results of the present study establish that these strategies appear to be standard practice [Kersten *et al.* 2022a]. For example, the aforementioned strategies regarding talent development are similar to the suggestions of the incoming professionals regarding learning. Whereas these authors found that combining strategies enabled them to complement and reinforce one another, the current analysis conducted by Groupwisdom™ provide valuable insights into what are good combinations of factors to be combined in strategies, for example 'Creating learning opportunities and accessible sites'.

Given that knowledge in the field of intellectual disabilities care derives from multiple sources (i.e. evidence-based practices, professional expertise and experiential expertise of service users and their relatives (Embregts 2017), it is relevant to know whether these sources were all acknowledged by the incoming professionals in our study. A closer look at the stakeholders mentioned in the three concept maps shows that in most clusters several disciplines are involved, such as support staff, psychologists, ID physicians, physiotherapists, and dietitians, which implicates the use of evidence based and practice based knowledge. This is consistent with the multidisciplinary character of intellectual disabilities care (Herps *et al.* 2016, Farrington *et al.* 2015, Haines and Brown 2018). However, the role played by service users and relatives, and thus experiential expertise, is mostly lacking in our study, which indicates a blind

spot of the incoming professionals. Recent research (e.g. Nijs *et al.* 2022, Olivier-Pijpers *et al.* 2020, Jansen *et al.* 2018) underscores their valuable contribution by bringing in an expedient additional perspective in order to improve the support for people with intellectual disabilities. The involvement of relatives, in terms of sharing knowledge, is also required in light of sustainable service provision, which acknowledges the indispensable role played by the informal network during the COVID-19 pandemic (Trip *et al.* 2022). Therefore, this blind spot needs attention in the knowledge policies of care organisations for people with intellectual disabilities.

Limitations

The findings of the present study should be interpreted in light of several limitations. The first limitation pertains to the small number of participating incoming support staff and ID physicians, which is likely due to the COVID-19 pandemic, insofar as this demanded prioritising the primary process and led to intensified work pressure and a shortage of staff. However, Kane and Trochim (2007) suggest at least five participants can produce meaningful data. Second, although a wide variety of experts were included in the expert group, the study lacked insight from an organisational science expert as well as from relatives and service users. This might have influenced the interpretation of the concept maps. We recommend replicating this study with larger numbers and including an expert on organisational science and relatives and service users in the expert group. Likewise, the study may be limited by not including incumbent professionals, as their perspectives may differ from those of incoming professionals. Future research may benefit from including professionals with a broader range of experience. Finally, the transferability of the findings to other settings or countries may be limited since the study was conducted only in the Netherlands. However, the organisational issues and challenges present in the Netherlands may be comparable to those in other developed countries where mainstream organisations provide services to individuals with intellectual disabilities. Conducting similar research in other countries would help determine the generalizability of the present findings.

Clinical implications

Our results indicate five key strategies through which to stimulate the application of new knowledge by incoming professionals: (1) providing tailored formal and informal learning opportunities, (2) providing accessible sites, tools, and platforms to share knowledge, (3) stimulating motivation and a sense of ownership, (4) providing preconditional resources such as time, space, and budget, and (5) providing a stimulating environment characterised by an open and safe climate and supportive structures (e.g. via multidisciplinary consultations). As such, care organisations for people with intellectual disabilities should consider the strategies suggested by the incoming

professionals on how individual and collective learning can be facilitated including both personal characteristics and the context. Additionally, co-creative collaboration between all knowledge holders, including relatives and service users, will add to a customised response to the different groups of incoming professionals, accommodating their specific needs and providing a mixture of formal and informal learning opportunities. This might prove beneficial when seeking to maintain or improve incoming professionals' performance (i.e. their contribution to the quality of life of their service users) in the current era of labour market shortages.

Given that the incoming professionals mentioned both formal channels for learning, such as training, and informal channels for learning, such as work-based learning, the present study indicates that it is important for care organisations for people with intellectual disabilities to pay attention to the character of the learning opportunities (i.e. formal versus informal learning) and provide a mixture of formal and informal channels. Although formal learning is still common practice, research indicates that informal learning connects better with the learning style of support staff in intellectual disabilities care (Gormley *et al.* 2020). Moreover, in light of the specific needs highlighted by incoming professionals, the present study suggests that adopting a customised approach for each group of incoming professionals in order to stimulate their application of new knowledge is essential. Applying the aforementioned implications of the present study will not only prove beneficial for incoming professionals without previous experience in the care and support for people with intellectual disabilities, but will also prove beneficial for incumbent professionals and incoming professionals - with experience in the care and support for people with intellectual disabilities - who are embarking on a new job in a different care organisation.

This study provides valuable insights into the perspectives of incoming professionals regarding the ways in which care organisations for people with intellectual disabilities can effectively promote the application of newly acquired knowledge. Furthermore, it highlights the importance of environmental factors in providing professionals with the necessary knowledge. For example, the study reveals that incoming professionals expressed a need for more practical training during their initial vocational education and showed interest in joining professional associations. These findings are consistent with previous research (Kersten *et al.*, 2022b)) emphasizing the role of environmental factors in the successful execution of knowledge strategies within these organisations.

Conclusion

The results of this study show that from the perspective of incoming professionals there are numerous ways in which their organisations can stimulate the application of new knowledge, such as arousing motivation, and providing preconditional resources and an inspiring environment.

ORCID

M. C. O. Kersten [ID] http://orcid.org/0000-0002-8844-9632
N. Frielink [ID] http://orcid.org/0000-0001-8489-8409
M. C. D. P. Weggeman [ID] http://orcid.org/0000-0001-6845-0903
P. J. C. M. Embregts [ID] http://orcid.org/0000-0003-3567-1528

References

Augustsson, H., Churruca, K. and Braithwaite, J. 2019. Re-energising the way we manage change in healthcare: The case for soft systems methodology and its application to evidence-based practice. *BMC Health Services Research*, 19, 1–11.

Berta, W., Teare, G. F., Gilbart, E., Ginsburg, L. S., Lemieux-Charles, L., Davis, D. and Rappolt, S. 2010. Spanning the know-do gap: Understanding knowledge application and capacity in long-term care homes. *Social Science & Medicine (1982)*, 70, 1326–1334.

Birken, S. A. and Currie, G. 2021. Using organization theory to position middle-level managers as agents of evidence-based practice implementation. *Implementation Science*, 16, 1–6.

Burton, M. and Chapman, M. J. 2004. Problems of evidence based practice in community based services. *Journal of Learning Disabilities*, 8, 56–70.

Cobigo, V., Martin, L., Lysaght, R., Lunsky, Y., Hickey, R. and Ouellette-Kuntz, H. 2014. Quality improvement in services for adults with intellectual and developmental disabilities: Guiding principles. *Journal on Developmental Disabilities*, 20, 89–102.

Concept Systems Incorporated. 2021. Concept System groupwisdom™ 2020. (Build 24.01) [Web-based Platform]. https://www.groupwisdom.tech.

de Boer, M. E., Depla, M. F., Frederiks, B. J., Negenman, A. A., Habraken, J. M., van Randeraad-van der Zee, C. H., Embregts, P. J. and Hertogh, C. M. 2019. Involuntary care–capturing the experience of people with dementia in nursing homes. A concept mapping study. *Aging & Mental Health*, 23, 498–506.

Drahota, A. M. Y., Meza, R. D., Brikho, B., Naaf, M., Estabillo, J. A., Gomez, E. D., Vejnoska, S. F., Dufek, S., Stahmer, A. C. and Aarons, G. A. 2016. Community-academic partnerships: A systematic review of the state of the literature and recommendations for future research. *The Milbank Quarterly*, 94, 163–214.

Embregts, P. J. C. M. 2017. Kennisontwikkeling en kennisdeling in gelijkwaardige verbinding tussen praktijk en wetenschap. *NTZ: Nederlands Tijdschrift Voor De Zorg Aan Mensen Met Verstandelijke Beperkingen*, 43, 219–226.

Farrington, C., Clare, I. C. H., Holland, A. J., Barrett, M. and Oborn, E. 2015. Knowledge exchange and integrated services: Experiences from an integrated community intellectual (learning) disability service for adults. *Journal of Intellectual Disability Research: JIDR*, 59, 238–247.

Gormley, L., Healy, O., Doherty, A., O'Regan, D. and Grey, I. 2020. Staff training in intellectual and developmental disability settings: A scoping review. *Journal of Developmental and Physical Disabilities*, 32, 187–212.

Greenhalgh, T., Robert, G., Macfarlane, F., Bate, P. and Kyriakidou, O. 2004. Diffusion of innovations in service organizations: Systematic review and recommendations. *The Milbank Quarterly*, 82, 581–629.

Haines, D. and Brown, A. 2018. Health professionals working effectively with support workers to enhance the quality of support for adults with intellectual disabilities: A meta-ethnography. *Journal of Applied Research in Intellectual Disabilities: JARID*, 31, 200–212.

Herps, M. A., Buntinx, W. H. E., Schalock, R. L., Van Breukelen, G. J. P. and Curfs, L. M. 2016. Individual support plans of people

with intellectual disabilities in residential services: Content analysis of goals and resources in relation to client characteristics. *Journal of Intellectual Disability Research: JIDR*, 60, 254–262.

Jansen, S. L., van der Putten, A. A., Post, W. J. and Vlaskamp, C. 2018. Do they agree? How parents and professionals perceive the support provided to persons with profound intellectual and multiple disabilities. *Journal of Intellectual & Developmental Disability*, 43, 441–452.

Kaiser, A. P. and McIntyre, L. L. 2010. Introduction to special section on evidence-based practices for persons with intellectual and developmental disabilities. *American Journal on Intellectual and Developmental Disabilities*, 115, 357–363.

Kane, M. and Trochim, W. M. K. 2007. *Concept mapping for planning and evaluation*. Thousand Oaks, CA: SAGE.

Karamitri, I., Talias, M. A. and Bellali, T. 2017. Knowledge management practices in healthcare settings: A systematic review. *The International Journal of Health Planning and Management*, 32, 4–18.

Kersten, M. C. O., Taminiau, E. F., Weggeman, M. C. D. P. and Embregts, P. J. C. M. 2022b. Contextual factors related to the execution of knowledge strategies in intellectual disabilities organizations. *Knowledge and Process Management*, 29, 242–254. 10.1002/kpm.1700.

Kersten, M. C. O., Taminiau, E. F., Schuurman, M. I. M., Weggeman, M. C. D. P. and Embregts, P. J. C. M. 2018. How to improve sharing and application of knowledge in care and support for people with intellectual disabilities? A systematic review. *Journal of Intellectual Disability Research: JIDR*, 62, 496–520.

Kersten, M., Taminiau, E., Weggeman, M. and Embregts, P. 2022a. Motives and strategies of CEOs for stimulating sharing and application of knowledge in the care and support for people with intellectual disabilities. *Journal of Knowledge Management*, 26, 114–141.

Lokman, S., van Oorsouw, W. M., Didden, R. and Embregts, P. J. 2022. Setting up a new team of support staff for people with mild intellectual disability or borderline intellectual functioning and severe challenging behaviour: A concept mapping study. *Journal of Applied Research in Intellectual Disabilities*, 35, 1348–1359.

Muller-Schoof, I. J., Verbiest, M. E., Stoop, A., Snoeren, M. and Luijkx, K. G. 2021. How do practically trained (student) caregivers in nursing homes learn? A scoping review. *Journal of Nursing Education and Practice*, 12, 25–33.

Nicolini, D., Powell, J., Conville, P. and Martinez-Solano, L. 2008. Managing knowledge in the healthcare sector. A review. *International Journal of Management Reviews*, 10, 245–263.

Nijs, S., Taminiau, E. F., Frielink, N. and Embregts, P. J. C. M. 2022. Stakeholders' perspectives on how to improve the support for persons with an intellectual disability and challenging behaviors: A concept mapping study. *International Journal of Developmental Disabilities*, 68, 25–34.

Olivier-Pijpers, V. C., Cramm, J. M. and Nieboer, A. P. 2020. Residents' and resident representatives' perspectives on the influence of the organisational environment on challenging behaviour. *Research in Developmental Disabilities*, 100, 103629.

Olsson, S. and Gustafsson, C. 2020. Employees' experiences of education and knowledge in intellectual disability practice. *Journal of Policy and Practice in Intellectual Disabilities*, 17, 219–231.

Overwijk, A., Hilgenkamp, T. I. M., Schans, C. P., Putten, A. A. J. and Waninge, A. 2021. Needs of direct support professionals to support people with intellectual disabilities in leading a healthy lifestyle. *Journal of Policy and Practice in Intellectual Disabilities*, 18, 263–272.

Pentland, D., Forsyth, K., Maciver, D., Walsh, M., Murray, R., Irvine, L. and Sikora, S. 2011. Key characteristics of knowledge transfer and exchange in healthcare: Integrative literature review. *Journal of Advanced Nursing*, 67, 1408–1425.

Ramerman, L., Hoekstra, P. J. and de Kuijper, G. 2018. Exploring barriers and facilitators in the implementation and use of guideline recommendations on antipsychotic drug prescriptions for people with intellectual disability. *Journal of Applied Research in Intellectual Disabilities: JARID*, 31, 1062–1070.

Ruud, M. P., Raanaas, R. K. and Bjelland, M. 2016. Caregivers' perception of factors associated with a healthy diet among people with intellectual disability living in community residences: A concept mapping method. *Research in Developmental Disabilities*, 59, 202–210.

Schalock, R. L., Verdugo, M. A., Bonham, G. S., Fantova, F. and Van Loon, J. 2008. Enhancing personal outcomes: Organizational strategies, guidelines, and examples. *Journal of Policy and Practice in Intellectual Disabilities*, 5, 276–285.

Schepens, H. R., Van Puyenbroeck, J. and Maes, B. 2019. How to improve the quality of life of elderly people with intellectual disability: A systematic literature review of support strategies. *Journal of Applied Research in Intellectual Disabilities: JARID*, 32, 483–521.

Trip, H., Northway, R., Perkins, E., Mirfin-Veitch, B. and Adams, R. 2022. COVID-19: Evolving challenges and opportunities for residential and vocational intellectual disability service providers. *Journal of Policy and Practice in Intellectual Disabilities*, 19, 102–115.

Trochim, W. M. 1989. An introduction to concept mapping for planning and evaluation. *Evaluation and Program Planning*, 12, 1–16.

Trochim, W. and Kane, M. 2005. Concept mapping: An introduction to structured conceptualization in health care. *International Journal for Quality in Health Care*, 17, 187–191.

van Bon-Martens, M. J., van de Goor, I. A. and van Oers, H. A. 2017. Concept mapping as a method to enhance evidence-based public health. *Evaluation and Program Planning*, 60, 213–228.

Van Dijk, A., De Nooijer, A., Niessen, I., Kerkhof, L., Buter, M., Verpalen, S. and En Dragt, W. 2021. Alle aandacht naar implementatie Evaluatie van de kennisinfrastructuur langdurige zorg. Utrecht: AndersonElffersFelix & ExpertiseZorg. <https://www.zorginstituutnederland.nl/publicaties/rapport/2021/11/12/onderzoeksrapport-alle-aandacht-naar-implementatie--evaluatie-van-de-kennisinfrastructuur-langdurige-zorg>.

Van Driesten, G. and Wessels, K. 2020. *Zó werkt de gehandicaptenzorg*. Amsterdam: De Argumentenfabriek.

Vereniging Gehandicaptenzorg Nederland. 2019. De gehandicaptenzorg in kerngetallen. <https://www.vgn.nl/feiten-en-cijfers-de-gehandicaptenzorg>.

Weggeman, M. C. D. P. 2007. *Leidinggeven aan professionals? Niet doen*. Schiedam: Scriptum.

World Health Organization. 2006. *Bridging the "know–do" gap. Meeting on knowledge translation in global health*. Geneva: WHO.

Zorginstituut Nederland. 2016. *Passend Onderzoek effectiviteit Langdurige Zorg*. <https://www.zorginstituutnederland.nl/publicaties/rapport/2016/12/15/passend-onderzoekeffectiviteit-langdurige-zorg>.

Appendix 1

Statements gathered in response to the predefined focus sentence: '"In order to stimulate me and other care professionals to apply new knowledge, my organisation can … " … ' (Step 2 of the concept mapping procedure)

Statements provided by support staff

Cluster 1: Create learning opportunities and accessible sites

1 Encourage a learning attitude and reflection on one's own work situation (e.g. also by participating in a study)
23 Identify the qualities of employees and facilitate them to develop further (e.g. via a trajectory in which previously acquired competences are recognised)
32 Facilitate time to follow courses in order to motivate employees to acquire knowledge
49 Clearly indicate where information can be found within the organisation via signposting (personal or digital)
55 Make information (knowledge) easy to find
56 Capture information (knowledge) in a clear way
65 Encourage professionals to feel pride about their positive experiences by showing and sharing your qualities as support staff

Cluster 2: Appropriately organise multidisciplinary work in the care of a service user

3 Stimulate open communication between all those involved (support staff, ID physicians, managers, psychologists and service users)

10 Provide support from psychologists and managers to teams

13 Promote that support staff are on the same page and that everyone offers the agreed guidance to service users

14 Be open to the signals from professionals that a service user is not doing well and take action on behalf of the organisation together as a team

18 Encourage that a treatment plan is developed in a multidisciplinary consultation based on a shared vision

19 Encourage that in a multidisciplinary consultation (with support staff, ID physician and psychologist) an image is formed about the situation of the service user based on the current information

27 Ensure there are enough colleagues to reduce workload

28 Ensure less turnover and greater continuity in colleagues (i.e. not always flexible workers) in order to reduce the workload

33 Facilitate time for coaching (new) colleagues so that you can also exhibit enthusiasm

36 Pay attention to time pressure/work pressure, so that more space and energy is created for acquiring and applying new knowledge

64 Keep an eye out for the qualities of support staff and try to strengthen these by making them visible

Cluster 3: Integrate the sharing of experiences and knowledge into the daily work rhythm

2 Facilitate the improvement of team functioning (share opinions in meetings to understand each other better)

4 Encourage support staff themselves to remain enthusiastic and motivated by sharing positive experiences with each other

5 Encourage that multidisciplinary experiences are shared with each other

6 Encourage psychologists to participate in the group from time to time so that they also get a concrete picture of things

8 Ensure that other disciplines can support the team with their own knowledge and insights in the event of problems (e.g. providing an identification plan)

11 Provide a team development programme that includes reflection on the team's own actions and encourages team learning (via discussion of team roles)

12 Organise monthly team meetings, which also include the manager and the psychologist, and ensure that during each meeting one resident is discussed and one team role

17 Encourage that a service users' progress becomes visible to professionals through video recordings and can be shared with all involved

26 Offer the possibility (again) for live meetings because you learn more from them

34 Allow for time to train a new colleague so that one's own work is not left undone

35 Allow for time to train a new colleague so that there is also room for questions and someone does not have to figure it all by themselves

42 Offer space in team meetings to share new knowledge (e.g. about new care and compulsion law, changes in medication)

48 Appoint knowledge brokers who can ensure that knowledge is shared between homes and groups

51 Organise fixed moments at which knowledge can be shared (such as in team meetings)

57 Make it possible for professionals and teams to look behind the scenes

59 Indicate which paths should be taken internally to share success stories

Cluster 4: Gaining inspiration through stories and enriching experiences

9 Ensure that other disciplines, such as psychologists, ID physicians, physiotherapists and dietitians, can provide new knowledge about how to deal with service users from outside the team

54 Make information (knowledge) easily accessible via the intranet

58 Allow for space in the internal training to share experiences, which then ensures that it is spread like an oil slick

60 Make it easy to share a success story (e.g. around permission for images)

61 Inspire professionals by providing knowledge through experiential learning (such as eating in a restaurant in the dark to learn what it is like to be blind or experiencing autism)

62 Visualise success stories in images so that they come to life more

63 Let the communication department share experiences of professionals who have a proactive attitude

66 Encourage professionals to share success stories in which new knowledge has been applied (from technology to care and compulsion law) in order to motivate others

Cluster 5: Develop and make accessible a varied and appropriate range of training programmes

7 Facilitate further training of psychologists and ID physicians so that they have the latest insights

15 Proactively respond to the (knowledge) needs of the staff

16 Allow use of an extensive and wide range of courses within the organisation (e.g. also on euthanasia)

20 Offer a separate budget for external courses

21 Have managers provide courses to healthcare professionals that specifically relate to service users' problems

22 Encourage participation in (mandatory) courses necessary to work for the organisation

24 Offer trajectories in which previously acquired competences are recognised so that professionals can develop further

25 Encourage professionals to help with training or research in order to apply their knowledge

29 Offer appropriate training courses that meet the needs of service users

30 Offer appropriate training courses that meet the needs of professionals

31 Provide a budget for employees to follow courses in order to help to motivate them to acquire further knowledge

37 Offer information via e-learning and the intranet

38 Offer e-learning so that you can choose when you follow the module

39 In addition to e-learning modules for skills, also offer live group meetings (e.g. practice to learn to prick)

40 Use e-learning modules that are interactive in nature (e.g. with assignments)

41 Offer courses on themes that are very much in line with the care needs of their own service users (e.g. diabetes)

43 Announce which courses are available and which new courses are on the horizon via clear communication

44 Set up an accessible procedure for following a training course (removing barriers, e.g. regarding team budget)

45 Build in time for employees to be able to take part in a training (such as Community Care)

46 Encourage professionals to follow training courses

47 Offer a good training offer with a wide range of training and courses

50 Appoint a dedicated officer for knowledge/innovation within the organisation who can provide new knowledge (source of information)

52 Offer information (knowledge) in an accessible language

53 Initially describe information (knowledge) in a compact way, so that it stimulates people to read further

Statements provided by psychologists

Cluster 1: Work supervisor who provides support during the induction period

1 Enable regular contact with the work supervisor during the induction period

90 Provide a work supervisor during the induction period, which would allow you to check whether you are using the correct working method

93 Provide good supervision during the induction period that can help you think through things

95 Provide a supervisor during the induction period who can help you to look beyond your day-to-day routine

98 During the induction period, provide the opportunity to choose your own supervisor with whom you click the most

99 During the induction period, provide a supervisor who is accessible and readily available

100 Provide a supervisor during the induction period who gives you confidence

Cluster 2: Collaboration in a learning community

3 Provide access to examples and formats of reports from colleagues

5 Facilitate the support staff in their functioning as knowledge holder

6 Take into account the amount of information support staff can process (e.g. during the COVID-19 pandemic)

7 Encourage a sense of ownership amongst the support staff

8 Facilitate a sense of ownership by support staff (e.g. making time available)

40 Provide an overview of colleagues specialisations

46 Foster a good working atmosphere among colleagues

47 Provide the opportunity to observe a more experienced colleague to see how they handle it

48 Provide the opportunity to work at a location with a more experienced colleague to consult with

84 Enable easy interaction between colleagues

Cluster 3: Stimulating a broadly oriented professional development

2 Provide access to examples and formats of peer referrals

22 Encourage psychologists to share with each other what knowledge is necessary to be able to work as a psychologist

34 Facilitate space to meet other colleagues from other regions and other disciplines

35 Make time available for meeting other colleagues and engaging with other disciplines from other regions

36 Facilitate that different disciplines from different regions can share their experiences with and questions about the target group

37 Facilitate that healthcare professionals can share their experiences about certain target groups

55 Encourage healthcare professionals to ask each other questions in order to make use of each other's knowledge

75 Encourage staff to be registered with a professional association in order to be able to comply with the re-registration

76 Encourage them to register with a professional association so that you can go there with your questions

77 Stimulate registration at SKJ [=Youth Quality Register Foundation] because re-registration helps you to develop as a professional

78 Encourage them to register with a professional association to connect with other colleagues

80 Encourage participation in intervision sessions

81 Encourage participation in their departments

88 Offer reference meetings where you can meet other psychologists of your own organisation

Cluster 4: Stimulate knowledge sharing between psychologists and support staff

32 Facilitate knowledge sharing through meetings

33 Facilitate sharing knowledge digitally, e.g. via a site similar to Facebook

38 Share a knowledge map for your own organisation (knowledge networks, reporting point)

57 Provide space for the exchange of knowledge between psychologists and support staff, which can lead to the generation of new knowledge

58 Encourage psychologists to help support staff share their knowledge (by encouraging them to take ownership)

59 Stimulate knowledge exchange in the group between psychologists and support staff so that new knowledge is generated

Cluster 5: Professional development through formal and informal training that contributes to daily practice

11 Encourage the acquired knowledge to be shared with other disciplines such as care managers

12 Encourage the knowledge to be written down

13 Regularly refresh acquired knowledge within the organisation

14 Make sure people remember what they have learned, by regularly repeating the information, for example, after a course

15 Offer knowledge that is in line with service users' problems

16 Offer knowledge closer to ones' own workplace to ensure that it is remained better

17 Connect knowledge to what healthcare professionals need at that moment

18 Consider which knowledge is important for which discipline, and when

19 Offer knowledge to support staff in moderation

23 Facilitate the availability of specific learning materials for support staff

24 Make an inventory of what knowledge should be offered individually and collectively

26 Facilitate the deployment of experts within the organisation (such as a coach on treatment, a coach on education)

27 Facilitate the involvement of experts from outside the organization on specific themes (e.g. addiction problems)

28 Facilitate regular themed meetings within the team

29 Provide opportunities for psychologists to acquire didactic skills for training and case studies

30 Provide opportunities for training for support staff led by the psychologists

31 Provide opportunities for professional training within the organisation (e.g. CBT course)

60 Offer training or courses to encourage you to continue to develop within your role (e.g. keep up-to-date with literature)

62 Offer you space for professional development

63 Offer a behavioural sciences learning track to learn how to deal with dynamics in teams, so that theoretical knowledge can be provided there

64 Support you in your professional development to learn the practical skills that you have not yet learned (sufficiently) in your training, such as conversation techniques, positioning within teams, gaining authority

79 Encourage participation in supervision

82 Make training budget available

87 Offer referral meetings where you gain new knowledge

Cluster 6: Knowledge vision and knowledge policy within the organisation

4 Provide space to learn

9 Involve the people who will be working with the methods when setting up an implementation plan

10 When using new methods, draw up a well-thought-out implementation plan in advance

20 Be a learning organisation

43 Clarify the different methods of declaring

44 Clarify the function of the different locations (consultation, treatment) and the methods of action within them

45 Provide a digital library in which healthcare professionals can find information they need

49 Provide a good online platform that provides a shared knowledge base of the organisations' tools and working methods

50 Have a clear method in which healthcare professionals are trained

51 Have a clear vision in which healthcare professionals are trained

52 Provide insight into the roles and positions of the care manager or team leader

53 Stimulate that the culture offers space for healthcare professionals to be vulnerable, e.g. by recognising that they do not need to know everything

54 Encourage that the culture that allows for room to make mistakes

56 Communicate to healthcare professionals that they do not need to know it all yet

61 Provide clarity about where responsibilities lie, in order to both be able to focus better on your own work and delegate if needed

83 Ensure a clear work process within the organisation, so that frameworks and responsibilities are clear

85 Provide insight into whom you should refer in the event that the Social Support Act applies

86 Provide insight into legislation (such as the Social Support Act)

94 Give healthcare professionals confidence so that they can learn

96 Make a reference work available on the intranet

Cluster 7: Offering clear learning and developmental paths

21 Provide explicit expectations of what knowledge you should have after 5 to 7 years of work experience

25 Make expectations from the organisation explicit regarding what knowledge you should have as a beginner

39 Provide an overview of what knowledge you need to have as a basis to work somewhere, e.g. the basic methods of the organisation

41 Offer a clear induction schedule that tells you what you need to know about the organisation

42 Offer tools to help you see how time can be divided on the basis of caseload

65 Let you start with an unambiguous target group to make it easier for you to master the knowledge

66 Let you start with a not too large caseload

69 Provide the space to get to know different target groups (e.g. through maternity leave)

73 Match your personal wishes with regard to onboarding

74 Provide the opportunity to start with a smaller target group and then expand later

89 Provide insight into the structure of the organisation, so that you know who to turn to

Cluster 8: Offer opportunities to deepen and broaden your knowledge of target groups

67 Provide the space to allow people to develop a preference

68 Offer the space to be able to choose a target group that you prefer to focus on

70 Offer the space to discover where your preferences lie in terms of a target group

71 Offer you the time to immerse yourself in a target group

72 Offer opportunities to deepen and broaden your knowledge of target groups

91 Provide variety in the work so as to allow you to master the applied knowledge

92 Ensure repetition in the work so that you can apply knowledge properly

97 Offer diversity in target groups so that you can tap into your knowledge to work methodically

Statements provided by ID physicians

Cluster 1: Make time, money, and staff available for knowledge sharing

1 Facilitate greater ID physician training place, both so that ID physicians can transfer their knowledge more and so there can be more ID physicians

3 Facilitate this process by making time available so that professionals can educate future professionals so that they become interested in working in this field (given the shortage of ID physicians)

4 Free up budget to be able to run training

5 Facilitate time for training (being able to do training during working hours)

6 Provide efficient work processes and good supportive ICT and office facilities (such as electronic client files), so that more space is created for knowledge application

8 Offer time and space to proactively develop new initiatives to share knowledge that are currently not possible due to the full agenda

17 Create space and facilitate that remedial educationalists can specialise

27 Ensure that success stories but also problems are placed on the agenda of national organisations, such as VGN, so that they can also be tackled nationally

28 Enter into good partnerships with other organisations so far as to deploy their specific expertise

33 Provide facilitation both through expertise management and general management, in line with their own role (also depending on the structure of the organisation)

37 Recruit employees with specific knowledge and areas of focus

38 Have managers actively ask employees what they need to do their job well

43 Stimulate further training by having managers question professionals about their plans for this

45 Encourage employees to follow courses for further training by making time available for this

46 Promote continuing education by making funding available for this

53 Facilitate being able to go to a conference together so that corridor conversations with colleagues can also be held there and knowledge can be more bundled (added value compared to attending an individual online conference)

58 Have managers proactively discuss their development options with healthcare professionals (e.g. given that ID physicians themselves have little room for this due to understaffing)

59 Have managers actively encourage employees to develop and facilitate them in this process

61 Reward professionals who are given more responsibility, such as performing reserved actions, in terms of their salary

67 Facilitate multidisciplinary consultations by making time available to professionals

Cluster 2: Stimulate professional curiosity through exchange and conversation

7 Encourage looking critically at the division of tasks and roles (who should do which care/administration) so that there is more room for knowledge application

9 When retrieving ideas/wishes/needs from service users, use good tools/questionnaires appropriate to their level so that they can complete them themselves as much as possible

11 Let support staff and service users discuss the wishes/needs of service users together

12 Also involve the service user council and the council of relatives when mapping out the wishes/needs of service users

13 Stimulate reflection amongst support staff by offering them the opportunity for peer review

14 Be cognisant of blind spots and encourage keeping an open mind (keeping the team awake), e.g. by discussing difficult cases with each other in team meetings

22 Have managers actively question new colleagues from any discipline on striking events in order to learn from them

55 Facilitate that knowledge and ideas can be exchanged between different organisations (from different sectors), e.g. organising a joint day of ID care and addiction care

57 Let managers talk to healthcare professionals and connect with where their qualities lie

60 Encourage practitioners to switch service user populations so that a fresh perspective can be gained on a problem and new knowledge applied (mobility policy)

63 Ensure a connection between the problems of the service user population and healthcare professionals

64 Challenge employees by bringing in a challenging service user population, so that they continue to develop their expertise and keep their knowledge up to date

Cluster 3: Targeted facilitation of professional development of an ID physician

18 Facilitate the creation of more assignments for training future professionals

20 Encourage interns to be trained to become ID physicians (i.e. encourage more trained people to come into the profession)

26 Facilitate research within the organisation (including in collaboration with Academic collaborative centres) to generate new knowledge so that this knowledge can be applied

35 Challenge support staff in their work so that it remains interesting (to provide continuity to groups and prevent turnover)

47 Appoint good librarians who can help with literature searches

48 Arrange access to scientific literature in order to be able to broaden ones' own knowledge as easily as possible

49 Facilitate availability of knowledge sources through a good library

65 Empower employees, e.g. by challenging them, so that they apply their knowledge better

Cluster 4: Open and safe climate to explore and innovate

2 Facilitate by making time available so that professionals can provide education about ID care to future professionals who can then later apply that knowledge both within the ID care and beyond

10 Create a working climate in which it is safe for professionals to bring uncertainties to the table and ask questions

15 Encourage that there is a safe environment in which problems and errors can be discussed ('ring the bell if something is bothering you')

16 Stimulate an innovation climate in which professionals reflect on their own actions so that they can identify where improvements are needed

21 Share the question of the month and answers (success stories) via an internal portal (intranet) so that employees feel free to ask questions (lower threshold)

23 Managers should use the fresh perspectives of new colleagues by asking them to write down notable things and share them with colleagues and the manager so that they can learn from them

29 Make agreements with other (ID care) organisations to share knowledge as professionals (via mutual consultations)

30 Encourage policy advisors/innovation staff to obtain knowledge from practitioners (and not just managers) for policy making that is both better suited to problems and more feasible

56 Stimulate more cross-pollination between organisations

Cluster 5: Acquire and transfer knowledge in multidisciplinary network environments

19 Facilitate that ID physicians can provide education to interns so that they also become more interested in the profession of ID physicians

24 Let managers encourage professionals to share knowledge gained during training with direct colleagues

25 Have the training coordinated and distributed jointly within (treatment) teams

31 Provide an internal facility in which professionals can indicate their expertise so that people can easily find each other internally within the organisation

32 Provide an overview of who within the organisation has what knowledge and expertise so that you as a professional can find colleagues

34 Use higher educated professionals to further develop the professional knowledge of support staff

36 Stimulate support staff as knowledge holders so that they stay in place for longer and continue to use their knowledge

39 Set up a joint outpatient clinic of ID physicians with psychologists so that they can complement each other, give feedback and learn a lot from each other

40 Make an inventory of the available expertise within your own organisation and make room for it to be used

41 Promote knowledge development, sharing and application by setting up a knowledge network and multi-disciplinary consultation teams (e.g. on sleep, the desire to have children, people with challenging behaviour)

42 Encourage professionals to share new insights from continuing education by having managers question them about this

44 Facilitate that cases are viewed from a multidisciplinary perspective

50 Facilitate that employees can easily access other people with expertise to exchange knowledge and experiences (if disciplines work in the same location)

51 Facilitate that healthcare professionals can come together physically to exchange knowledge and to engage in debate

52 Facilitate that feedback can take place after a conference visit and that this can be discussed with all interested colleagues from different disciplines, e.g. by including this in the annual planning

54 Create time at fixed moments to share knowledge from everyone's field (ID physicians, psychologists, support staff), and ensure that the link to practice is also emphasised

62 Challenge professionals by assigning them tasks that they are also good at (e.g. having a nurse inject in the group home instead of a medical service)

66 Facilitate a platform through which to share knowledge, e.g. via team days in the expertise centre

68 Offer a good consultation structure for knowledge sharing and application to safeguard knowledge, e.g. via multidisciplinary expertise teams that work together with case histories