

The value of using the PROSPER-ID2 for involved stakeholders and Stichting Philadelphia Zorg.

**Master Thesis** 

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# Preface

Before you lies the thesis "The value of using the PROSPER-ID2 for involved stakeholders and Stichting Philadelphia Zorg". This thesis is written as a master assignment for the study program Health Sciences at the University of Twente.

Since I was little, I've been highly interested in healthcare and in particular health care for people with intellectual disabilities. As a result, I have over eight years of work experience and voluntary work in this field. It is my ambition to continue working in the sector for individuals with a intellectual disability after completing my master degree. Therefore I was very excited when this assignment within Stichting Philadelphia Zorg became available. This assignment offered me a great experience to extend my knowledge on the care of people with an intellectual disability. I would like to thank my supervisor Karin Volkers for her guidance and support during the process. I would also like to express my gratitude to the nurse specialists for incorporating me in the implementation process. Additionally I would like to thank all of the respondents for their contribution and enthusiasm. I hope this research can contribute to the implementation of the PROSPER-ID2 in Philadelphia and increase the value of the use for the organization.

Lastly I would like to thank my supervisors form the University of Twente, Pieter-Jan Klok and Ria Wolkorte for their feedback and help through the entire process.

Maaike van Veluwen

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# Summary

# Background

The effects an intellectual disability (ID) can be seen in every aspect of life, including the health of an individual with ID. They often have a hard time expressing themselves when it comes to health related issues. Therefore a pro-active health assessment instrument for people with ID (Proactive, Systematic, Participation, Evidence-based, pRimary care-Intellectual Disabilities, PROSPER-ID) was developed. The PROSPER-ID provides a structured and comprehensive overview which can assist identifying medical issues of people with ID. In the end of 2022 Philadelphia asked their nurse specialist to adjust and implement the PROSPER-ID in their organization. In existing literature, no research is yet conducted on the experiences of the PROSPER-ID for other stakeholders than the GPs. Therefore, it is unknown what the experiences of the involved stakeholders are with the PROSPER-ID. The aim of the study is to determine the value of the PROSPER-ID2 for the involved stakeholders and for Philadelphia and give advice on how the value can be increased. Therefore, the main research question is: "What is the value of using the PROSPER-ID2 for involved stakeholders and for Philadelphia and how can this value be increased?".

# Methods

A qualitative explanatory research with semi-structured interviews is performed with five nurse specialists, one manager, four caregivers and three nurses. The determinants from the interview scheme are based on the MIIDI-model, therefore closed deductive coding was used to analyse the interviews.

#### Results

This study identified seven determinants which show the most important experiences of the involved stakeholders, as well as the benefits and drawbacks for Philadelphia, together they established the value of the PROSPER-ID2. According to the analysis, these seven determinants are; social support, time available, personal benefits and drawbacks, outcome expectations, formal ratification by management, professional obligation and performance feedback. These determinants serve as the foundation for the recommendations which will be given to increase the value of the PROSPER-ID2.

# Discussion

Respondents indicated that they experienced the PROSPER-ID2 to be very valuable in their work. However they also experienced a few drawbacks and identified a few problems when implementing and using the PROSPER-ID2. Therefore 17 recommendations were made to give advice on how the value of the PROSPER-ID2 can be increased. In short these recommendations focus on supporting and facilitating different aspects of the PROSPER-ID2, set clear objectives and review the responsibilities.

## Conclusion

To conclude, respondents highly valued the PROSPER-ID2 since it has a lot of advantages for their work and their clients. However some drawbacks were addressed, recommendations to these drawbacks can increase the value of the PROSPER-ID2. Further research should focus on the analysis of the advices given after filling out the PROSPER-ID2 to give more generalisable advices in the organisation. Moreover, this research can be reperformed after recommendation have been implemented and after the completion of the implementation process.

Keywords: PROSPER-ID – PGO-VB – Nurse Specialists – Medical care for individuals with Intellectual Disabilities – MIDI model

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# 1. Introduction

In the Netherlands, the prevalence of people with an Intellectual Disability is estimated at 440.000 (RIVM, 2023). Individuals with an Intellectual Disability (ID) experience significant limitations in cognitive functioning (IQ<70) and adaptive behavior. This includes challenges with social, conceptual and practical changes. The ID originates before the age of 22 and persist throughout their lifetime. The effects of the disability can be seen in every aspect of life, including the health of an individual with ID (Bakker-Van Gijssel, 2021). The prevalence of health issues is higher among this population than in the general population. For example, individuals with ID have 1.7 times more health problems and die on average 13-20 years younger than individuals without ID (Braam et al., 2014). They commonly have limited body awareness, fail to notice or discuss unusual health signs and may have atypical symptoms (Bakker-Van Gijssel, 2021). This often leads to delayed-, postponed- or misdiagnosis (Bakker-Van Gijssel, 2021; Mastebroek et al., 2016). Since 2000 General Practitioners (GPs) and ID Physicians (Arts voor Verstandelijk Gehandicapten, AVG) are responsible for the healthcare individuals with ID receive. Over the last years, patients with ID are living more in communities rather than in residential care. As a result GPs are increasingly responsible for the care for these patients (Bakker-Van Gijssel, 2021). On average, a GP is providing care for ten to fifteen people with ID. However, due to time constraints and a GP's inadequate knowledge regarding the behavioral and psychiatric problems of a patient with ID (Bakker-Van Gijssel, 2021) about two-thirds of GPs experience difficulties in providing care to people with ID (Bekkema, N.; de Veer, A.; Francke, A., 2014).

Health assessment instruments focused on prevalent diseases for people with ID, have been proven to be an effective way in identifying health needs and can be vital in health promotion and monitoring (N. Lennox et al., 2011). Bakker et al., (2014) developed a pro-active health assessment instrument for people with ID (Proactive, Systematic, Participation, Evidence-based, pRimary care-IntellectualDisabilities, PROSPER-ID) based on valid scientific principles. The PROSPER-ID provides a structured and comprehensive overview which can assist the GP with identifying medical issues of people with ID. In a qualitative study to the opinion of the GPs on the PROSPER-ID, GPs mentioned the fear of a growing workload and reluctance to fill out an instrument (Bakker-Van Gijssel, 2021).

Before the corona pandemic, Philadelphia, a healthcare organization which provides care to approximately 9500 patients with ID, wished to implement the PROSPER-ID as a healthcare assessment instrument for their clients living in the communities. However, due to the pandemic and the lack of time of GPs, the implementation was not successful. Therefore Philadelphia hired nurse specialists in 2022. These nurse specialists were appointed to monitor medical alertness among healthcare providers and monitor the prevention of health problems. They were also given the task to implement and conduct the PROSPER-ID. To properly implement the PROSPER-ID in Philadelphia the nurse specialists adjusted the original PROSPER-ID so that it can be filled out by caregivers and nurses and assessed by nurse specialists. Since December 2022, the adjusted PROSPER-ID, which in this thesis is referred to as PROSPER-ID2, is used as a health assessment instrument in Philadelphia. The PROSPER-ID2 is filled out by the caregivers and assessed by the nurse specialists who then create action points, make referrals to other healthcare professionals and provide support to caregivers.

In existing literature, no research is yet conducted on the experiences of the PROSPER-ID for other stakeholders than the GPs. Therefore, it is unknown what the experiences of the involved stakeholders are with the PROSPER-ID2. The involved stakeholders are: the nurse specialists, the caregivers, the nurses and managers. Moreover, is it unclear what the benefits of the use of the PROSPER-ID2 are for Philadelphia. The aim of the study is to determine the value of the PROSPER-ID2 for the involved stakeholders and for Philadelphia and give advice on how the value can be

increased. Therefore, the main research question is: "What is the value of using the PROSPER-ID2 for involved stakeholders and for Philadelphia and how can this value be increased"?

To give answer to this research question, the following sub questions are formulated:

- 1. What are the experiences of the involved stakeholders with the use of the PROSPER-ID2?
- 2. What are the benefits and drawbacks with the use of the PROSPER-ID2 for Philadelphia?
- 3. How can the value of the use of the PROSPER-ID2 be increased?

# 2. Theory

# 2.1 Definition of ID

According to the American Association on Intellectual and Developmental Disabilities (AAIDD) an ID is "a condition characterized by significant limitations in both intellectual functioning and adaptive behavior that originates before the age of 22" (American Association on Intellectual and Developmental Disabilities (AAIDD), n.d.).

Intellectual functioning or intelligence is about the set of skills which makes it possible to understand new information and to learn and apply new skills (Bakker-Van Gijssel, 2021; Broekaert et al., 2010). To capture intelligence in one general factor is hard, however standardized measurement instruments are using the Intelligence Quotient (IQ) because it is the most complete and valid measurement instrument for measuring intelligence (Broekaert et al., 2010).

Adaptive behavior is defined as: "The collection of conceptual, social, and practical skills that are learned and performed by people in their everyday lives" (*Richtlijn Diagnostisch Onderzoek LVB*, n.d.). A distinction is made between three forms of adaptive behavior. The first form of adaptive behavior, conceptual skills contain the understanding of language-, time- and number concepts. The second form, social skills include among other, communication competences and social responsibility. Lastly, activities of daily living, healthcare and transportation are covered by practical skills. When someone is deficient in these areas and falls short of what is expected based on their age and culture, significantly limited adaptive behavior occurs.

A distinction is made between borderline intellectual functioning (Zwakbegaafd, ZB), mild intellectual disability (Licht Verstandelijke Beperking, LVB), moderate intellectual disability (Matige Verstandelijke Beperking, MVB), severe intellectual disability (Ernstig Verstandelijke Beperking, EVB) and profound intellectual and motor disabilities (Ernstig Meervoudige Beperking, EMB) (*Doelgroep LVB - EMB*, n.d.). Borderline intellectual functioning is characterized by an IQ between 70 and 80. A mild intellectual disability is characterized by an IQ between 50 and 70. Even though IQ is a crucial factor in the borderline intellectual functioning and mild intellectual disability classification, particular attention should be paid to (limitations in) adaptive functioning (GGZ Standaarden, n.d.). A moderate intellectual disability is characterized by problems in social and communication skills and individuals often have a long learning period. It is expressed in an IQ score between 35 and 50. A severe intellectual disability is characterized by an IQ between 20 and 35. In these cases individuals need assistance with all daily activities including dressing, eating and personal care. Additionally, spoken language is frequently constrained to one word or several sentences. Individuals with a severe multiple disability have in addition to their intellectual disability a severe physical disability, they are dependent on intensive care and supervision (*Doelgroep LVB - EMB*, n.d.).

# 2.2 Health and healthcare of and for people with intellectual disabilities 2.2.1 Health of people with intellectual disabilities

It is known that people with ID have a higher prevalence of health issues than the general population. The healthcare of individuals with ID is provided by GPs, ID physicians and other health care providers (Bakker-Van Gijssel, 2021). Men with ID die on average 13 years younger and women 20 years younger than individuals without ID (Glover, G., Williams, R., Heslop, P., Oyinola, J., & Grey, 2017).

Multimorbidity is very common in the population of ID. In particular, individuals with profound intellectual and motor disabilities show a variety of physical health issues with an average of twelve health problems per person (van Timmeren et al., 2016). The top twenty health issues affecting the general population are not the same as the top twenty most prevalent health problems in individuals with ID (Kinnear et al., 2018). When health care providers assume the same morbidity patterns as with the general population it can deceive the health care providers (Bakker-Van Gijssel, 2021).

People with ID have 1.7 times more health problems as individuals without ID (Straetmans et al., 2007). The most frequent are mental illnesses, dermatological complaints and epilepsy. It has been determined that epilepsy or convulsions are a significant and, to some extent, possibly avoidable causes of death. In addition, congenital heart disease, commonly seen in people with Down syndrome has a negative influence on the life expectancy. Furthermore, additional risk factors, such as being overweight or obese, are present in ID patients (Krahn et al., 2006).

There are additional factors that contribute to the health and life expectancy of individuals with ID. Individuals with ID often have a low socioeconomic status (SES), which can have a negative influence on their health (Emerson et al., 2014). Besides, individuals with ID commonly have limited body awareness and lack insight into illnesses. The general population's knowledge of illness and understanding of physiology is generally missing among those with ID (Bakker-Van Gijssel, 2021). Thirdly, individuals fail to notice or discuss unusual health signs and they fail to respond to abnormal symptoms, this can lead to a postponed diagnosis (Mastebroek et al., 2016). Lastly, patients with ID can have atypical symptoms which can results in delayed- or misdiagnoses (Bakker-Van Gijssel, 2021).

# 2.2.2 Healthcare for people with intellectual disabilities

# ID physicians and GPs

In 2000, the health care for patients with ID was recognized by the Dutch Minister of Health as a new medical specialization. The care is provided by ID physicians who participated in a three-year postgraduate training (Bakker-Van Gijssel, 2021). ID physicians have specific knowledge about the particular problems patients with ID experience, for example about the common genetic problems (Nederlandse vereniging artsen verstandelijk gehandicapten, n.d.). ID physicians provide care in residential care facilities as well as in 88 outpatient clinics in the Netherlands. Half of the patients with ID live in the community and receive medical care from a GP. In the last years the care of patients in residential care was primarily delivered by ID physicians. Increasingly GPs are now providing medical treatment in residential care facilities and outpatient clinics (Bakker-Van Gijssel, 2021).

In 2015 the healthcare for half of the patients with ID whose care was financed by the AWBZ (Exceptional Medical Expenses Act) shifted to the Wet Maatschappelijke Ondersteuning (WMO: Social Support Act) and the Jeugdwet (Child and Youth Act) (Rijksoverheid, 2015). As a result, a larger number of people with ID live in the communities rather than in residential facilitations. Therefore, GPs deal with the increasing care for these patients.

At present, an average general practice is already providing care for 10 to 15 people with ID. On average, these individuals visit their GP almost two times more often than patients without ID, and are prescribed medication four times more often. Mild intellectual disabilities are present in the practices of 95% of GPs. Additionally, 68% of GPs have in their practice individuals with moderate intellectual disabilities, and 26% have patients with severe or profound intellectual disabilities (Bakker-Van Gijssel, 2021; Braam et al., 2014).

# Challenges for patients with ID in healthcare

The care of patients with ID presents challenges to about two thirds of all GPs (Bekkema et al., 2014). This is a consequence of inadequate knowledge about behavioral and psychiatric problems, the absence of knowledge about clinical presentations and a shortage of time for seeing the patient. Moreover, the treatment of patients with ID appears to be challenging to health practitioners. Additionally, getting access to healthcare is challenging for patients with ID. In an interview study, half of the patients experienced negative staff attitudes and behaviors and felt discriminated. The health practitioners were not willing to make adjustments for people with ID (Ali et al., 2013). Furthermore, there are barriers when it comes to receiving the appropriate care because of delays or issues with investigating and diagnosing illnesses common for people with ID. Moreover, communicating with individuals with ID is regularly complicated, difficult, and time-consuming. Therefore, is it crucial to reserve enough time for patients with ID when they require care. Lastly, individuals with ID have informal caregivers which are older than they are themselves. It is essential to address the ability of the supportive capacity of the informal caregivers (Bakker-Van Gijssel, 2021).

# 2.3 Health assessment instruments for people with intellectual disabilities

In existing literature, no research has been conducted on experiences with health assessment instruments for individuals with ID for other stakeholders than the GPs. Therefore, this chapter will discuss mainly the experiences of the GPs with health assessment because the same facilitators and barriers can arise for other involved stakeholders.

#### Health assessment instruments

According to the Colorado Research Network's Patient Advisory Council a health assessment is: "A set of questions, answered by patients, that asks about personal behaviors, risks, life-changing events, health goals and priorities, and overall health" (Agency for Healthcare Research and Quality, 2020). They are often used as structured screening and assessment tools to help develop a plan of care. Implementing health assessment instruments focused on prevalent diseases for patients with ID, has been proven to be an effective way in identifying health needs and can be vital in health promotion and monitoring. Three elements are frequently found in health assessment instruments for people with ID: age- and gender specific preventive screening, new disease detection and health promotion (Bakker-Van Gijssel, 2021). It is suggested to conduct an annual health assessment for people with ID, this may be the single most important improvement in the primary care of people with ID in this century (Walmsley, 2011). Lennox et al., (2011) showed an increased disease detection alongside an improved health promotion and increased participation in prevention activities. Gordon et al., (2012) showed that health assessments for people with ID living in the community is costeffective in Australia.

## Health assessment instruments used by healthcare professionals

Health assessment instruments can support healthcare professionals, GPs in particular, with the care for patients with ID (Bakker-Van Gijssel, 2021). In the study of Bakker et al. (2021), GPs stated that health assessment tools could assist them in providing proactive care if patients with ID have a hard time expressing themselves regarding health related issues. GPs often experience communication barriers with patients with ID, a health assessment instrument can help to overcome these hurdles (N. G. Lennox et al., 2013). Moreover, a health assessment instrument provides a structured and comprehensive overview which can assist the GP with identifying medical issues of people with ID. Patients with ID have specific health problems that GPs are not aware of, a health assessment instrument can help GPs focus on the prevalent health issues among the ID population by providing an overview of the multiple problems patients with ID frequently experience.

# Barriers mentioned by GPs

Bakker et al. (2021) conducted a qualitative study to find the opinion of GPs in the Netherlands regarding health assessment instruments for patients with ID. They found that "GPs are willing to use a health-assessment instrument, if the tool is scientifically tested, and its use leads to significant health gains". However, GPs also lined out many barriers against health assessment instruments (Bakker-Van Gijssel, 2021). Diversity of the patients with ID, insufficient knowledge, lack of resources (money, staff, and time), communication issues with the patient and the care system, resistance to checklists and fear of medicalization are some examples. Following that, the fear of a growing workload and reluctance to fill out an instrument are also barriers which the GPs mentioned. Likewise, the loss of unique information and the uncertainty of implementation in the consultation by using a health assessment instrument are also described as hurdles. GPs prefer that patients and their caregivers fill out the health assessment instrument at home.

# Patients and their caregivers

The majority of patients with ID found the use of health assessment instruments to be beneficial. Health professionals, people with ID and their caregivers recognize the value of health assessment instrument (Bakker-Van Gijssel, 2021).

# Evaluation of the effects of using health assessment instruments

Only a few studies have examined the extent to which a health assessment instrument for people with ID leads to health benefits in the short or long term. Felce et al. (2008), found a significant increase in health promotion actions after a health assessment, however there was no significant change in rates of contact with healthcare professionals.

# 2.4 Pro-active health assessment (PROSPER-ID)

In the Netherlands, health assessment instruments for people with ID were not commonly utilized and no such instrument was available. Furthermore, deficiencies in terms of effectiveness, clinometric and content were present in the health assessment instruments available. Therefore Bakker et al. (2021) developed a health assessment instrument for people with ID based on valid scientific principles. In their study they explored which items should be included in the instrument based on the expertise of GPs and ID physicians. After they reached agreement on the topics included in the instruments, they performed a study which focused on the formulation of the questions in particular for people with ID. Both studies and the results will be described below (Bakker-Van Gijssel, 2021).

## Development items PROSPER-ID

To determine which items needed to be included in the health assessment instrument Bakker et al. (2021) performed a Delphi study among 24 GP experts and 21 ID physicians. The GPs and ID physicians all had experience or affinity with medical care for people with ID. Three sequential online questionnaires were conducted. The first round included a set of 82 general items and 14 items concerning physical additional examinations based on two preferred health assessment instruments the 'Stay Well and Healthy! Health Risk Appraisal (SWH-HRA)' and the 'Comprehensive Health Assessment Program (CHAP)'. If more than 75% of the GPs agreed on the inclusion of an item consensus was reached and the item was included in the health assessment instrument. If an item obtained 50-75% consensus, the items were represented to the experts and ID physicians. Participants could provide suggestions for new items in an open field. Those items were qualitatively analyzed and proposed in the following round. The consensus provided by the ID physicians was used as additional information for the GPs. After three rounds consensus was reached on 64 general items 18 items concerning physical and additional examinations (Bakker-Van Gijssel, 2021).

# Health assessment instrument for patients with ID

For the health assessment instrument to be applicable for people with ID, the exact formulation of the question was the next step. Bakker et al. (2021) conducted a cognitive interview technique among 14 people with ID and their caregivers. The people with ID were 18+ years and had all levels of ID, the caregivers could be a professional caregiver or a family member. All the items emerged from the Delphi study were included in the questionnaire. Those items were transformed into a question and asked to the participants in five subsequent rounds. The questionnaire was adjusted after each round until saturation was reached. Baker et al. (2021), identified 363 problems concerning comprehension of the question, problems in missing answer categories and inaccurate instruction. These problems led to 316 changes to the questionnaire. By doing so, they improved the comprehensibility and clarity of the health assessment instrument (Bakker-Van Gijssel, 2021).

# 2.5 Philadelphia

Philadelphia is a healthcare organization which provides care for people with intellectual and physical disabilities. In 2021, Philadelphia provided care for approximately 9500 clients. These clients work, live, follow day care activities or receive outpatient care. The care is provided by 7.300 employees, 5.000 volunteers and 1.200 students and trainees (Stichting Philadelphia Zorg, 2021).

Philadelphia is divided into several clusters. The largest cluster 'Zorg & Wonen' provides support to over 4.600 clients with a mild to moderate intellectual disability. The clients live with Philadelphia and receive care and support at 273 locations in 8 regions. Philadelphia has specialized locations for specific subgroups and location where several subgroups are located. The cluster 'Intensieve Zorg' supports 1.540 clients living in 58 locations in the Netherlands, these clients are in need for highly specialized care and support. This cluster focusses on clients with a profound intellectual and motor disabilities. The cluster 'Werk & Begeleiding' provides outpatient care and daycare activities to more than 4.000 people with a moderate to mild disability (Stichting Philadelphia Zorg, 2021b).

In 2022, Philadelphia hired nurse specialists within the cluster 'Expertise en Onderzoek'. They are appointed to monitor the medical alertness among healthcare providers and the prevention of health problems. Additionally, they will optimize the collaboration with GPs and ID physicians. The nurse specialists were given the task to implement and conduct the PROSPER-ID (Stichting Philadelphia Zorg, 2021a).

# PROSPER-ID in Philadelphia

Before the corona pandemic, Philadelphia wished to implement the PROSPER-ID as a healthcare assessment instrument in for their clients. However, due to the lack of time of GPs and the pandemic the implementation was not up and running. Therefore in 2022 Philadelphia asked their nurse specialist to adjust and implement the PROSPER-ID in their organization.

# Adjustments of the PROSPER-ID

To properly implement the PROSPER-ID within the organization, the nurse specialists made some adjustments to the original PROSPER-ID. The main adjustment towards the original PROSPER-ID is that the caregivers and nurses fill out the PROSPER-ID2 and nurse specialists assess the outcomes. Originally the GP filled out the PROSPER-ID with the client and assessed it. After the PROSPER-ID2 is filled out, the nurse specialists decide whether or not to refer to a specialist. This decreases the workload for GPs. Second, the formulation of the questions is adjusted, the new formulation is understandable for the caregivers who are only pedagogically trained. Moreover, a few questions are added or removed along with the ideas of the nurse specialists. They also included referrals to protocols and policy documents so that those are easily accessible. Furthermore, the nurse specialists made the PROSPER-ID2 online accessible, in this way the answers can be filled out more easily. Lastly, the nurse specialists fill out an excel file with the follow up of the action points. This gives an overview of the action points which frequently occur and whether anything is done with the action points.

Despite the modifications, the subjects addressed in the original PROSPER-ID correspond almost completely with the subjects in the adjusted version. The developer of the PROSPER-ID, still considers the modified version to be so similar that validity can be guaranteed. However, if the PROSPER-ID2 is further adjusted, for example by focusing on different target groups, this needs to be reevaluated. Both the original PROSPER-ID and the adjusted version serve the same goals; discovering unidentified diseases, raising medical awareness and perform a systematic screening.

# 2.6 Measurement Instrument for Determinants of Innovations

The Measurement Instrument for Determinants of Innovations (MIDI) describes 29 determinants which may affect the implementation of an innovation. Innovations are defined as interventions, guidelines and programs that are perceived as new by an individual or another unit of adoption. Fleuren et al. (2014) developed the MIDI to improve the understanding of de determinants that may affect the implementation and to target the innovation strategy better. The MIDI is designed for researchers who want to identify the determinants that affect how an innovation is really used before or after is has been adopted (Fleuren et al., 2014).

The transformation from one stage to the other between the four main stages in an innovation process (dissemination, adoption, implementation and continuation) can be influenced by a number of determinants associated with the characteristics of the innovation. Fleuren et al. (2014) stated "The transition from one stage to the next can be affected, positively or negatively, by various determinants associated with characteristics of the innovation (e.g. complexity and clear procedures), the potential user of the innovation (e.g. knowledge and self-efficacy), the organizational context of the user (e.g. staff turnover and financial resources) and the socio-political context (e.g. legislation)".

The user of the MIDI first need to select the determinant that should be measured. The main criterion is the predicted impact of the determinant on the potential variations in completeness of the use of the innovation, given the nature of the context and the innovation. It is advised to measure as many factors as possible for an accurate evaluation of an innovation strategy because they may all have a practical value for designing that strategy. By gathering data, the instrument will support in making a profound judgement on the relative importance of determinants. The MIDI can be applied before and after the innovation is introduced (Fleuren et al., 2014).

#### *Innovation strategy*

For the implementation of the PROSPER-ID2, Philadelphia used a 'Facilitating Strategy'. The facilitating strategy uses an initiator in the organization who supports the process around the new innovation, aids in decision making and are the ones to fall back on. For the PROSPER-ID2 in Philadelphia, the nurse specialists are the initiators. The nurse specialists modified the PROSPER-ID2 to make it suitable for the organization. Besides, the nurse specialists contact and instruct the caregivers. The caregivers can rely on the nurse specialists when it comes to questions or support. After conducting the PROSPER-ID2 the nurse specialists play a role in formulating the action points and monitoring those. In the MIDI, the innovation strategy can be applied or provide to explain issues that arise between the determinants and the actual application. Because innovation process can be influenced by the innovation strategy, the innovation strategy is included as a separate variable.

## Experience and Value

The MIDI model was designed to improve the understanding of which determinants influence the implementation. The determinants are used as explanatory factors that provide a reason for implementing the innovation based on expectations about the utilization of the innovation. In this study, the determinants from the MIDI model are, in addition to acting as an explanatory factor, also used to quantify experience and value. Experience and value are the result of the actual use of the PROSPER-ID2, in the model of Fleuren et al. (2014) this is represented by the implementation phase. According to the Cambridge Dictionary, experience is: "The way that something happens and how it makes you feel" (Cambridge Dictionary, n.d.-a). Experience is determined by what actions for the PROSPER-ID2 an individual performs and how they feel about those actions. Experience is especially measured in the implementation phase. Value is defined as "The importance or worth of something for someone" or "How useful or important something is" according to the Cambridge dictionary

(Cambridge Dictionary, n.d.-b). Benefits and drawbacks with the use of the PROSPER-ID2 refer to the value, what are the gains for an individual when using the PROSPER-ID2 and what does it cost someone in terms of time and effort. The value mainly determines the continuation of the implementation. Assuming determinants that, in addition to being explanatory, also provide information on the experience and value of involved stakeholders with the PROSPER-ID is an addition to the current MIDI model. A further contribution of this study to the original model is the cyclical and continuous characteristic of the implementation phase which is also reflected in the arrow from implementation to "Determinants associated with the experience and/ or value" in figure 1. Experiences from the implementation process are seen as factors which influence further implementation and continuation of the PROSPER-ID2. To explore the experience and value in addition to the explanatory factors, the determinants will be categorized in two groups: 'Determinants associated with the experience and/ or value' and 'Determinants that may affect the implementation'.

#### **Determinants**

In this research, the determinant associated with the socio-political context are not included since there are no legislation and regulations which prohibit or obligate the use of the PROSPER-ID in healthcare organisations for people with ID in the Netherlands. Moreover, the determinants correctness, replacement when staff leave and financial resources are not included because those are irrelevant in this early phase of implementation. An overview of all the determinants which can influence the innovation process positively or negatively are included in figure 1. This figure is based on the model of Fleuren et al. (2014), which can be found in Appendix A. An extensive overview of the determinants, a description, the operationalization and the associated stakeholders is given in Appendix B. An overview of the concepts Fleuren et al. (2014) are using is given in Appendix C.

Determinants associated with the experience and/ or value Associated with the PROSPER-ID Associated with Philadelphia Associated with the user 1. Procedural clarity Personal benefits/ 13. Time available 2. Completeness 14. Material resources drawbacks 7. Outcome expectations and facilities 3. Complexity 4. Compatibility 8. Client satisfaction Observability 9. Client cooperation Dissemination 10. Social support 11. Self-efficacy 12. Knowledge Adoption Determinants that may affect the implementation Associated with the PROSPER-ID Associated with Philadelphia Associated with the user 1. Relevance for client 2. Professional obligation 6. Formal ratification by 3. Descriptive norm management Implementation Staff capacity 4. Subjective norm 5. Awareness of content Coordinator of innovation Unsettled organisation 10. Information Continuation accessible about use of the innovation 11. Performance feedback Implementations strategy strategy Facilitating strategy

 $\textit{Figure 1: Determinants which can influence the innovation process of the PROSPER-ID2\ in\ Philadelphia}$ 

# 3. Methodology

This chapter discusses the research methods applied to give answer to the research question.

# 3.1 Study Design

A qualitative explanatory research with semi-structured interviews is performed to gain insight in the experience of the relevant stakeholders with the PROSPER-ID2. In addition, insights in the benefits and drawbacks which influence the use of the PROSPER-ID2 for Philadelphia were gathered. It was chosen to perform a qualitative research because the approach is helpful in understanding the experiences of individuals in health professions (Khankeh et al., 2015). Qualitative research is used to understand the experiences of the participants by a holistic and in-depth perspective well suited to explore the facilitators and barriers stakeholders experience in daily practice (Vishnevsky & Beanlands, 2004). It was chosen to perform an explanatory research because there are causal relationships in the research questions.

It was decided to conduct interviews with the relevant stakeholders because in-depth insight in the experiences and opinions of the stakeholders is needed. Furthermore, the interviews were semi-structured and not open or structured interviews because in this way it is possible to address the determinants from the MIDI in a structured way. Moreover, it gave the possibility to ask further questions on determinants.

# 3.2 Sample and Sampling

The most relevant stakeholders are the nurse specialists, the managers, the caregivers and the nurses of the client which are involved in filling out the PROSPER-ID2. By interviewing stakeholders with different roles regarding the PROSPER-ID2, a multifaceted overview of the experiences with the PROSPER-ID2 in Philadelphia did arise. The inclusion criterion 'involved in the process of conducting PROSPER-ID2' was used to select the stakeholders. Clients and family members were not included since, in this phase of implementation, they had no part in the process of the PROSPER-ID2. Theoretical saturation was taken as a starting point. Theoretical saturation refers to a point in research where no new information or insights are generated through conducting interviews, no additional data collection is necessary. When no new information or insights were gained from the interviews, no additional interviews were conducted. In this study, five nurse specialists, four caregivers, three nurses and one manager were interviewed. The five nurse specialists were interviewed because they implement and assess the PROSPER-ID2, the four caregivers and the three nurses were interview because they conduct the PROSPER-ID2, the manager was interview because she is involved in the implementation process of the PROSPER-ID2.

All stakeholders were recruited through non-probability sampling. The nurse specialists and managers were selected based on expert sampling, a commonly used purposive sampling technique. This technique is used because both nurse specialists and managers have specialized knowledge of the use and content of the PROSPER-ID2 within Philadelphia. The nurse specialists and managers were invited to participate by mail. Caregivers and nurses were recruited through snowball sampling. This type of sampling is used because it was unknown to the researcher which caregivers and nurses members were involved in filling out the PROSPER-ID2. Therefore, nurse specialists were asked which caregivers and nurses could be asked to participate. Thereafter, caregivers and nurses were asked to participate by email.

# 3.3 Operationalization

In Appendix B an overview is given of the determinants, a description of the determinants, the operationalization of the determinants and involved stakeholders per determinant. The operationalization of the determinants is completed based on the MIDI model by Fleuren et al. (2014). Although the MIDI has not yet been validated, it was created using a framework that has been used for over twenty years and which is utilized in numerous scientific research for the evaluation of healthcare innovations.

The relevance of every determinant for each group of stakeholders is determined. Therefore, each group of stakeholders was given a different interview schedule with only the relevant determinants. Overarching questions with multiple determinants have been formulated to shorten the time required for each interview. No new determinants emerged from the interviews with the stakeholders. The different interview schemes for nurse specialists, caregivers, nurses and managers can be found in appendix D.

# 3.4 Data Collection

The research question is answered by conducting semi-structured interviews by means of an interview schedule based on the operationalization of the MIDI. The interviews are conducted by the author (MvV). The interviews lasted around 45 minutes for the nurse specialists, between 30 and 55 minutes for caregivers and nurses. The duration of the interview with the manger was 35 minutes. The interviews toke place both online via Webex and at the participants' place of work. Additionally, with the approval of the interviewees, the interviews are recorded, so that the interviews could be transcribed. The audio and data received from the interview are stored safely in the DWO of Philadelphia (Digitale Werk Omgeving).

# 3.5 Data Analysis

The interviews are anonymized to make sure the privacy of the participants is guaranteed. First, the audio was transcribed in Amberscript. Thereafter, the transcript was closed deductive coded using Atlas.ti. Closed deductive coding was chosen because the codes are based on the MIDI in theoretical framework. Coding took place in three iterative phases. In the first phase, the exploration phase, the transcript was open coded, codes were appended to text fragments. In the second phase, the specification phase, axial coding was used. Codes were integrated around central categories, these categories corresponded to the determinants of the MIDI model. The most important categories were determined in this phase, moreover the interrelationship and differences between the categories did arise. In the final phase, the reduction phase, selective coding was used. In this phase the emphasis was on making connection between categories. By analyzing the transcript according to closed deductive coding the experiences of the stakeholders with the PROSPER-ID2 were mapped out as the barriers and facilitators which influencing the use of the PROSPER-ID2 within Philadelphia. A determinant was only coded if it influenced the implementation or completion of the PROSPER-ID2. At the end of the data analysis, a reflection of the outcomes took place to determine whether the research question could be answered with the analyzed data. In the analysis two different variables were calculated to select the most relevant determinants. Firstly, the percentual frequency of the respondents provides information about the frequency of each determinant being mentioned by a respondent. Secondly, the percentual frequency quantifies the percentage of times a code appears relatively to the overall amount of codes, with this the quantity of occurrences of each code allocated to a determinant has been taken into account.

# 3.6 Ethical approval

Ethical approval is provided by the Humanity & Social Sciences domain, part of the BMS faculty, with request number 230106. When stakeholders participated in this research, they were informed about the purpose, duration and the anonymization of their participation. Moreover, they were informed about the voluntary participation and safe storage of the audio. Participants gave verbal consent prior to the interview for participation in the research and recording the interview.

# 4. Results

# 4.1 Characteristics respondents

For this research 13 respondents were interviewed. The interviews were conducted among five nurse specialists, four caregivers, three nurses and one manager. One nurse specialist and one caregiver are both working as a nurse. In this study, 11 women (84,6%) and 2 men (15,4%) participated. Ten respondents have completed nursing education, one respondent followed internal education to apply for caregiver, another respondent studied pedagogy and one respondent completed de study 'Sociaal Pedagogische Dienstverlening'.

The respondents work on average 3.2 years in their current position, 7.8 years for Philadelphia and 17.4 years in the health care sector. The duration of the interviews lasted between 31 and 54 minutes with a mean of 42 minutes. Two interviews were conducted in person, the remaining 11 were conducted online via Webex. The characteristics of the respondents are shown in table 1.

Table 1: characteristics of the respondents

Repondent nr.	Function	Gender	Education	Years of work experience in current position	Years working for Philadelphia	Years in healthcare	Level clients	Durance interview	Online/ in person
1	NS	F	Nursing	1,0	13,0	23,0	Not specific	45:40:00	Online
2	N & CG	F	Nursing	2,0	1,8	5,0	Youth PIMD	31:44:00	Online
3	NS	F	Nursing	1,0	1,0	20,0	Not specific	45:57:00	Online
4	NS	F	Nursing	1,0	16,0	16,0	Not specific	52:09:00	In person
5	NS & N	М	Nursing	0,8	12,0	12,0	Not specific	48:49:00	Online
6	NS	М	Nursing	0,7	0,7	9,0	Not specific	45:00:00	Online
7	CG	F	Internal course caregiver	2,0	2,0	3,5	MID - MOID	42:26:00	Online
8	N	F	Nursing	0,5	0,5	34,0	PIMD	35:32:00	Online
9	CG	F	Pedagogy	4,0	16,0	18,0	MID	43:07:00	Online
10	N	F	Nursing	4,0	4,0	20,0	PIMD, elderly clients	54:17:00	Online
11	MG	F	Nursing, Post HBO management	4,0	4,0	34,0	X	36:44:00	Online
12	CG	F	SPH	19,0	19,0	19,0	MID- MOID	36:02:00	In person
13	N	F	MZ4 & Nursing	1,5	12,5	12,5	SIV- PIMD	31:02:00	Online
Mean				3,19	7,88	17,38		1,76	

Notes: CG= Caregiver, F= Female N= Nurse, NS= Nurse specialist, M=Man, MG= Manager, MID= Mild intellectual disability, MOID= Moderate intellectual disability, PIMD= Profound intellectual and motor disability, SIV= Severe intellectual disability

# 4.2 Interviews

In total, 1078 codes were formulated, these codes were allocated to the 25 determinants of the MIDI model. The determinants were assigned to the four overarching variables describing an implementations process. Tables 2 and 3 show the distribution of the variables among the variables of an innovation process.

Table 2: Determinants associated with the experience and/ or value

Determinants associated with the experience and/ or value		
Dissemination	1. Procedural clarity	
Adoption	2. Completeness	
	3. Self-efficacy	
Implementation	4. Complexity	
	5. Compatibility	
	6. Client cooperation	
	7. Social support	
	8. Knowledge	
	9. Time available	
	10. Material resources and	
	facilities	
Continuation	<ul><li>11. Observability</li><li>12. Personal benefits/ drawbacks</li><li>13. Outcome expectations</li><li>14. Client satisfaction</li></ul>	

Table 3: Explanatory determinants that may affect the implementation

Determinants that may affect the implementation			
Dissemination	15. Awareness of content of		
	innovation		
	16. Formal ratification by		
	management		
	17. Coordinator		
	18. Information accessible about		
	use of innovation		
Adoption	19. Professional obligation		
Implementation	20. Staff capacity		
Continuation	21. Relevance for client		
	22. Descriptive norm		
	23. Subjective norm		
	24. Unsettled organization		
	25. Performance feedback		

In table 4 and 5 the results of the analysis are presented. The percentual frequency of the respondents and the percentual frequency which were used to select the most relevant determinants are showed. An extensive version of these tables can be found in Appendix E.

Table 4: Results of analysis of the determinants associated with the experiences and/ or value

Innovation Process	Determinant	Number of respondents	Percentual frequency respondents	Frequency responses	Percentual frequency responses
Dissemination	1. Procedural clarity	13	100%	48	6%
A 3 4	2. Completeness	5	42%	22	3%
Adoption	3. Self-efficacy	4	31%	9	1%
	4. Complexity	11	92%	58	7%
	5. Compatibility	10	77%	35	4%
Implementation	6. Client cooperation	10	100%	47	5%
	7. Social support	13	100%	97	11%
	8. Knowledge	12	92%	94	11%
	9. Time available	13	100%	90	10%
	10. Material resources and facilities	12	92%	27	3%
Continuation	11. Observability	13	100%	44	5%
	12. Personal benefit/ drawback	13	100%	148	17%
	13. Outcome expectations	13	100%	105	12%
	14. Client satisfaction	10	83%	18	2%

Table 5: Results of the analysis of the determinants that may affect the implementation

Innovation Process	Determinant	Number of respondents	Percentual frequency respondents	Frequency responses	Percentual frequency responses
	1. Awareness of content of innovation	9	69%	20	6%
Discouring ation	2. Formal ratification by management	12	100%	58	18%
Dissemination	3. Coordinator	5	63%	6	2%
	4. Information accessible about the use of the innovation	2	15%	3	1%
Adoption	5. Professional obligation	13	100%	71	22%
	6. Staff capacity	12	92%	32	10%
Implementation	7. Descriptive norm	9	69%	17	5%
	8. Subjective norm	6	50%	9	3%
Continuation	9. Relevance for client	12	92%	37	11%
	10. Unsettled organisation	6	100%	29	9%
	11. Performance feedback	13	100%	31	9%

# 4.2.1 Determinants associated with the experience and/ or value

In the following paragraphs an answer on the sub questions; What are the experiences of the involved stakeholders with the use of the PROSPER-ID2? and What are the benefits and drawbacks with the use of the PROSPER-ID2 for Philadelphia? will be given.

#### 1. Procedural clarity

All the respondents addressed, in total 48 times the extent to which the PROSPER-ID2 is described in clear steps. Nine respondents mentioned the steps in the PROSPER-ID2 to be clear, four respondents addressed that is not always clear which steps need to be carried out. Both, nurse specialists and caregivers, describe that filling out the PROSPER-ID2 becomes easier and more clear as more PROSPER-ID2s are filled out. One nurse specialist said: *'Yes, I must admit, if you complete them repeatedly, you get more and more skillful and handy. Of course, this is just the case'*. In sum, respondents state that unclarity has a negative influence on filling out the PROSPER-ID2. The clarification that occurs after filling out a few PROSPER-ID2s has a positive influence on the completion of the PROSPER-ID2.

#### 2. Completeness

The degree to which the activities in the PROSPER-ID2 are complete were mentioned 22 times in 5 interviews. This determinant refers to the completeness of the PROSPER-ID2 with regard to containing all relevant topics and questions. Four nurse specialists and one nurse mentioned a lack of clarity on the content of the PROSPER-ID2. Consequently, the list was implemented less frequently: 'I think that some of my colleagues are using PROSPER-ID2 less often because they are somewhat uncomfortable with the fact that the document was not clear. So that caused it to be implemented a little less frequently'. Despite the ambiguity, they implemented the PROSPER-ID2 because the need for asking the question is high: 'For me, it did not cause me to be reluctant or anything, those questions just need to be asked anyways'. In order to implement the PROSPER-ID2 properly, nurse specialist stated that the content of the PROSPER-ID2 needs to be clarified. Thus, according to the respondents, the incompleteness of the content of the PROSPER-ID2, resulted in less PROSPER-ID2s being filled out. Therefore incompleteness of the content of the PROSPER-ID2 has a negative

influence on filling out the PROSPER-ID2. However, respondents still implemented and filled out the PROSPER-ID2 as they recognized the significance of the PROSPER-ID2.

## 3. Self-efficacy

In total, the degree to which the professional believed that he or she was able to implement the activities involved with the PROSPER-ID2 were mentioned nine times by four respondents. Three respondents stated uncertainty about one's ability to complete the PROSPER-ID2, one respondent thought herself to be able to fill out the PROSPER-ID2. One nurse specialist stated that he was unsure about his ability to implement the PROSPER-ID2 however, because he succeeded, it confirmed for him being a good nurse. Respondents stated that completing the PROSPER-ID2 is adversely affected by uncertainty about one's own ability.

## 4. Complexity

11 respondents mentioned 58 times the degree to which the PROSPER-ID2 was complex to them. Four respondents referred to the PROSPER-ID2 as 'easy to comprehend' or 'clearly formulated'. However, nine nurse specialists and caregivers indicate the PROSPER-ID2 as complex, questions are hard to understand or unclarities need to be looked up. One professional stated: 'How the PROSPER-ID2 is currently designed, yes (it's too complex). Not so complex that it is considered impossible, but I believe it could be simpler and shorter'. Adjustments need to be made in order to stimulate caregivers to fill out the PROSPER-ID2: 'I don't see any real disadvantages, only that in my opinion it could be simpler, shorter and that that might also be a barrier for employees to fill it in'. In addition plenty caregivers stated that information needed for the PROSPER-ID2 is hard to find in the ECF (Electronic Client File): 'It's (the ECF) just really too extensive. It's not all clearly stated in one place, sometimes it's in three places'. Because of complexity and the challenge of searching, caregivers fill out the PROSPER-ID2 to a lesser extent.

## 5. Compatibility

10 respondents named the degree to which the PROSPER-ID2 is a good match for the way they used to work 35 times. Seven respondents; four nurse specialists, one nurse and two caregivers state the PROSPER-ID2 to be compatible with their work. One nurse specialists and two nurses do not find the PROSPER-ID2 to be compatible with their work, this because the PROSPER-ID2 is not yet fully integrated into the current work tasks and hence frequently falls to the bottom of the priority list. Nurse specialists contend the PROSPER-ID2 to be compatible with their values and their working methods because its focus is also on prevention and it was stated as the primary duty in the job description. According to the caregivers, it is compatible with their line of work because medical depth can be sought, for which is generally no time: 'Through this form you go back into someone's medical background and records a little deeper and more things come to light. Some things are really good to know or are a thing we need to do something with'. The perception that the PROSPER-ID2 is compatible with the respondents' existing work has, according to the respondents, a favorable impact on the PROSPER-ID2s implementation.

# 6. Client cooperation

Only one caregiver collaborated with a client when filling out the PROSPER-ID2. However, nine other professionals had a variety of ideas about the cooperation with clients, this determinant was mentioned 47 times. The client who participated in completing the PROSPER-ID2 was diagnosed with a mild intellectual disability. According to the caregiver, the client experienced the collaboration as a quality moment, the client felt heard and seen: 'I just noticed that he actually liked being able to talk about himself and his experiences'. Moreover, the client was able to provide much information required to finish the PROSPER-ID2. The client appeared to be quite acquainted with his own life even though it was about though topics. The caregiver stated that collaboration is only possible if the

client is aware of his/her own health condition. Clients were not involved in filling out the PROSPER-ID2 when their disability was too severe or the location was not stable enough due to an incidence. From the nine respondents, six mentioned that collaboration may be burdensome or complex for the client. In sum, respondents indicate client cooperation to have a favorable impact on the implementation of the PROSPER-ID2 when clients are capable to and it is not burdensome to the client.

# 7. Social support

The extent of support experienced by the respondents from social referents relating to the use of the PROSPER-ID2 was mentioned by all the respondents 97 times. Ten respondents indicated to experience social support to positively influence the completion of the PROSPER-ID2. During the process of filling out the PROSPER-ID2 or when uncertainties appeared, caregivers could rely on the assistance of the nurse specialists, this impacted completing the PROSPER-ID2 positively. One caregiver stated: 'The nurse specialists said: Yes, we're going to work with the PROSPER-ID2, I'm going to help you with that and we're going to fill that out together. It will be super nice for you to have more depth and to be able to work more preventively. Then I thought, okay, let's do it'. Additionally, completing the PROSPER-ID2 together with coworkers encouraged caregivers to accomplish the PROSPER-ID2 quicker and easier. Moreover, nurse specialists and caregivers experience support from management and organization as positive influence on filling out the PROSPER-ID2: 'The whole focus on medical alert is there a lot from the organization. The importance is seen and supported, which also positively impacts the PROSPER-ID2'. However more support from the management and organization is preferred by the nurse specialists when it comes to determining goals and implementation strategies because it will have a positive influence on the implementation of the PROSPER-ID2.

# 8. Knowledge

The degree to which a respondent has the knowledge needed to use the PROSPER-ID2 was mentioned 94 times by 12 respondents. Five respondents stated to have enough knowledge needed to use the PROSPER-ID2, three respondents indicated not to have enough knowledge needed for the use and five respondents said to have enough knowledge however, experienced problems regarding knowledge needed. This part also includes methods to acquire knowledge needed for completing the PROSPER-ID2 and knowledge needed to answer the questions of the PROSPER-ID2. The respondents provided several methods on how they acquired the knowledge they needed before being able to complete the PROSPER-ID2. Some examples of methods which had a positive influence on filling out the PROSPER-ID2 are: their experience with the client, consumed education and the ECF. While certain respondents indicated to have sufficient knowledge, others acknowledged they lacked it and therefore were not able to fill out the PROSPER-ID2. Although numerous respondents indicate to primarily rely on the ECF for information, many also claim that the ECF's incomplete or nonexistent information makes searching for the right information challenging. The ECF is not always used properly and information may be missing because for instance, family may not wish to exchange information. A nurse specialist emphasizes this by stating that there are variations in the degree of file formation which affects the degree to which the PROSPER-ID2 is completed. Ambiguities in the PROSPER-ID2 were mainly looked up or resolved by the caregivers themselves. One caregiver explained she did this because she did not wanted to bother anyone: 'We received the PROSPER-ID2 and were asked: just fill it in and if you have any questions, you can always call or email. But I don't want to bother people, so I generally have a do it myself attitude. I'm going to find out how I can do that myself, do it and we'll see'. Also nurse specialists occasionally missed the necessary information required to fill out the PROSPER-ID2, as a result they obtained extra information from certified sites or schoolbooks: 'Well, I do have a fair amount of knowledge, but I also sometimes come across

syndromes or advices that I think, I really don't know anything about this. Then I have to dive back into the textbooks again to gain knowledge about a certain syndrome in order to actually be able to give good advice about it'. In sum, respondents indicate the lack of necessary knowledge led to fewer questions being answered on the PROSPER-ID2 and more work for the person who had to fill out the form because additional research was required.

## 9. Time available

All the respondents referred 90 times to the determinant which indicates if sufficient time is provided to include the PROSPER-ID2 in their day-to-day work, the time available. 11 respondents indicated insufficient time to have a negative influence on filling out the PROSPER-ID2. Although it is frequently stated that there is insufficient time available to complete the PROSPER-ID2, respondents state that the influence of time on the PROSPER-ID2 is minimal because they believe that the PROSPER-ID2 should be planned and that time should be made available for it: 'It is just a matter of making time for filling out the PROSPER-ID2'. However, filling out the PROSPER-ID2 fails because insufficient time is available or because the PROSPER-ID2 is forgotten due to not enough time for the workload. A significant drawback cited by a number of respondents is the time spent on the PROSPER-ID2 is subtracted from the direct care hours spent on the client: 'Filling out a complete PROSPER-ID2 quickly takes over an hour per client. This is a result of a lot of data, for example in the file, which needs to be looked up or needs to be asked to someone else. This is an hour that is also deducted from the direct care hours'. Four respondents mentioned that time required per client can be diminished by filtering the PROSPER-ID2 per carevision. Questions which are only relevant to the syndrome of the client could for example be automatically be selected. To sum, despite insufficient time for the PROSPER-ID2, caregivers and nurses state to complete the PROSPER-ID2.

# 10. Material resources and facilities

Presence of materials and other resources or facilities necessary for the use of the PROSPER-ID2 is mentioned by 12 respondents, 27 times. All the 13 respondents stated to have access to enough materials and resources. It can be convenient for some respondents to print the PROSPER-ID2. Material resources and facilities had no major influence on the degree of completion of the PROSPER-ID2.

# 11. Observability

All the respondents mentioned 44 times the outcomes of the PROSPER-ID2 being clearly observable. The outcomes of the PROSPER-ID2 are the recommendations given by the nurse specialists for example the referrals to other specialists. Ten respondents stated the outcomes to be clearly observable and this having a positive influence on them completing the PROSPER-ID2, three respondents stated the outcomes not to be clearly observable. The outcomes of the PROSPER-ID2 are generally visible to the caregivers, especially if the recommendations are filled out in the appropriate section in the PROSPER-ID2 or in a separate report. The PROSPER-ID2, in the perspective of the caregivers, delivers a lot of recommendations that are of significant added value. One caregiver stated: 'We bring up so much with it. I have yet to come across a PROSPER-ID2 with fewer than three recommendations'. The outcomes of the PROSPER-ID2 provide a lot of valuable information about the clients and the advices given can be applied in their day-to-day work. As a result, caregivers complete the PROSPER-ID2 more frequently and quickly. The nurse specialists, however, indicate that they have no insight in the follow up on the advices given: 'I have to trust that they will follow my advice and I think that the results will only become visible when, for example, a year later or two years later, the PROSPER-ID2 is filled out again for the same respondent and I can ask: what were the advices given and how are they followed up'. Thus, respondents indicate that if the outcomes are clearly observable, the PROSPER-ID2 is filled out more frequent.

# 12. Personal benefits and drawbacks

The degree to which using the PROSPER-ID2 has advantages or disadvantages was named 147 times by all the respondents. The advantages and disadvantages refer to the extent the use of the PROSPER-ID2 has benefits or drawbacks for the nurse specialists, nurses and caregivers personally. Numerous respondents also refer to the benefits and drawbacks the PROSPER-ID2 has for their clients as benefits and drawbacks for them personally, therefore many of the benefits mentioned also relate to clients. All 13 respondents mentioned advantages which influenced the completion of the PROSPER-ID2 positively. Multiple advantages and a few drawbacks were identified by the respondents. The most prevalent benefits and drawbacks will be discussed below. The first advantage mentioned by many respondents is prevention, and thereby the early detection of symptoms. One respondent said: 'An added value of the PROSPER-ID2 is the prevention, delving into the client'. Another advantage brought up by different respondents is that the care for their clients may improve when filling out the PROSPER-ID2 and following up the advices: 'Advices that I give to locations, which can be so valuable to them, to be able to continue in the care process and also to boost the quality of care and to increase it even further'. Respondents also acknowledge the improvement in the quality of life for their clients and a better understanding of their client and their medical situation. A clearer picture of the client is provided by the PROSPER-ID: 'The fact that the client is actually in a clearer picture in all areas of health gives me an advantage'. An additional advantage cited by respondents is that the client's medical information in up-to-date, making it visible which information is missing: 'I could also immediately see if something was missing or didn't have something in the picture, for example the question about the do not resuscitate statement'. Realizing that behaviors might result from medical issues is another benefit. All of the advantages stated have, as their unifying characteristic, that the PROSPER-ID's added value encourages the completion. This only if the added value is clear to respondents, if those are not clear, it will negatively impact the completion of the PROSPER-ID2. There were also a number of disadvantages, seven respondents mentioned drawbacks to negatively affect the completion of the PROSPER-ID2. In addition to being time-consuming (described below in time available), the activities which resulted from the PROSPER-ID2 led to a lot of work. The disadvantages result in a negative attitude towards the PROSPER-ID2.

#### 13. Outcome expectations

The importance to achieve certain objectives for their clients and the expectation that the use of the PROSPER-ID2 will lead to the achievement of certain objectives was indicated 105 times by all of the respondents. Outcome expectations refer to predetermined goals and their achievability. No objectives which must be achieved with the implementation of the PROSPER-ID2 have been established in advance. Therefore, it is unclear to both nurse specialists and caregivers which objectives can or ought to be fulfilled: 'I can't really say what the goals are and which need to be achieved'. As it is now difficult to effectively communicate the value of the PROSPER-ID2 it would have been helpful for the respondents if objectives were formulated. The need for objectives was frequently brought up in the interviews, one respondent stated: 'I would really like to have such a goal, I notice, but we don't have one yet. I mean, a goal for me could also be for the next six months, if I want to finish 50, then I really have a goal that I want to work towards, but we don't really have that'. Another caregiver indicates a need for objectives because filling out the PROSPER-ID2 is not a necessity. A major consequence of not having objectives is that caregivers don't fill out the PROSPER-ID2 because not everyone values it equally. Ten respondents mentioned not having outcome expectations to have a negative influence on completing the PROSPER-ID2. Several respondents stated that a clear working method, specified responsibilities and defined objectives would aid with the implementation. Despite the lack of explicit objectives, ten respondents established a variety of

their own objectives, including; the ability to use the PROSPER-ID2 in the multidisciplinary consultation (in Dutch: 'Beraad') to improve communication with relatives, deepen at client level, better understand behavior by identifying symptoms, work preventively and increase medical awareness. To sum, having no defined outcome expectations has a negative influence on filling out the PROSPER-ID2.

## 14. Client satisfaction

10 respondents named 18 times the degree to which they expect the clients to be satisfied when using the PROSPER-ID2. Three respondents indicate the expectation of their clients to be satisfied however, seven respondents indicate that filling out the PROSPER-ID2 and also the results of the PROSPER-ID2 can be burdensome for clients, it can cause anxiety because it concerns their health. This affects the implementation of the negatively PROSPER-ID2 because caregivers do not want to burden their clients too much.

# 4.2.2 Determinants that may affect the implementation

## 15. Awareness of content of innovation

This determinant describes the degree to which the user has learnt about the content of the innovation, it is mentioned 20 times by 9 respondents. Seven respondents state that ignorance makes filling out the PROSPER-ID2 challenging for both nurse specialists and caregivers. Respondents state that colleagues do not fill out the PROSPER-ID2 since they are unfamiliar with it, therefore not being aware of the content of the innovation has a negative influence on the implementation of the PROSPER-ID2.

## 16. Formal ratification by management

The formal ratification of the PROSPER-ID2 by management was pointed out 58 times by 12 respondents. All these 12 respondents indicate that not having any form of formal ratification negatively influences the completion of the PROSPER-ID2. The respondents indicate that the implementation is now mainly based on informal agreements from the management: 'Fixed is a big word, but I do know that my manager really wants us to actually implement this at the locations. I relate to that wish so I really started working with it. So I see it as a job in that sense'. However agreements and objectives to strive towards are desired by both nurse specialists and caregivers, mainly because it is unclear to the respondents how the PROSPER-ID2 has to be implemented without the agreements and objectives. As previously mentioned, this contributed to the stagnation of the implementation. Additionally, the nurse specialists found it challenging to convey the usefulness of the PROSPER-ID2 to the locations with the absence of goals. This complicated the implementation and reduced the PROSPER-ID2 completion on locations. Furthermore, the PROSPER-ID2 has no hard requirements and has a non-committal nature, therefore problems arise when introducing it at location: 'Now it's a bit non-committal actually, it's more your own effort, which means that you choose if you do or don't work with it. And it always remains a bit difficult of course how it will be further implemented. So yes, sometimes it would be nice if there was maybe a little more structure there'. If locations do not fill in the PROSPER-ID2, the nurse specialists will leave it because there are no agreements on it. One nurse specialists stated: 'When locations put up a wall and don't respond, I let the situation aside because there isn't yet a formal appeal'. This implies that the PROSPER-ID2 is not filled out in particular locations. Also, due to a lack of agreements, it is unclear who should implement and who should fill out the PROSPER-ID2. Some respondents, mainly nurse specialists, are of opinion that implementing and accessing the PROSPER-ID2 better matches the role of area nurse. For some respondents it is also unclear whether the caregiver or the nurse should fill out the PROSPER-ID2 and carry out the actions going forward. The lack of clarity about responsibility occasionally results in the PROSPER-ID2 not being implemented or actions not being

carried out. Additionally, respondents asserted that, after advices have been given, care is not properly structured. For instance, it is unclear who is responsible for covering the expenses required for the fulfillment of the advices, this results in recommendations from the PROSPER-ID2 not being followed. One respondent said: 'Who pays for that? And how do you arrange it? Imagine, you're a caregiver or a relative and you see okay, there should be a dietitian, because there is a serious risk of malnutrition. And the GP says: yes, I do have a dietician but he is not specialized at all in people with autism and a mental disability, how do you end up with the right people? Tell me, how do you organize that?'. Respondents also indicate they need objectives and agreements to ensure the continuation of the PROSPER-ID2 in the future due to concerns that it will vanish and be forgotten. One caregiver said that she will not fill out the PROSPER-ID2 in the future without formal agreements: 'You need some clear agreements about this, because if you are going to fill it out again, how do you proceed with it? Otherwise, I think that it will all be filled out for all clients and that I will be done with it and think, okay, great. I don't know if I would suddenly think in a year and a half: we once completed such a PROSPER-ID2 I would like to ask if I need to do something with it or something'. In order to continue utilizing the PROSPER-ID2 in the future, agreements are required about, among other things, time, quantity and responsibility. They indicate that these agreements should come from management, but input from nurse specialists can be asked about the content of the PROSPER-ID2. Finally, caregivers are not facilitated in getting hours to complete the PROSPER-ID2. This might be an explanations for why caregivers have not filled out the PROSPER-ID2. A nurse specialists also underlines this: 'I wonder to what extent caregivers are facilitated to do all this in their time, because I know that they have, for example, two hours per month to perform their tasks, or that can be done per client differ. But perhaps that does play a role, which is why, for example, I have not yet received a response from the other locations'. To sum, missing formal ratification by management has a negative impact on the implementation, execution and continuation of the PROSPER-ID2.

# 17. Coordinator

Five respondents discussed having one or more persons responsible for coordinating the implementation of the PROSPER-ID2 in the organization. All these five respondents contend that is not clear who is responsible for implementing and filling out the PROSPER-ID2. They indicate that no individual has been assigned to coordinate and implement the PROSPER-ID2. Several respondents noted that this has a negative influence on the process of the PROSPER-ID2 because there is no one taking the lead.

# 18. Information accessible about the use of the innovation

Only two nurse specialists said three times something about being able to find information within the organization about using the PROSPER-ID2 as intended. Nurse specialists made themselves an appendix to the PROSPER-ID2 which provides additional explanations to the questions. Links to certified sites have also been included in the appendix. One nurse specialist said: 'We have also made a kind of attachment for ourselves in which we shared links with each other from which you can easily find information or reference material'. This appendix influences the process of the PROSPER-ID2 positively as is helps with formulating advices.

# 19. Professional obligation

Professional obligation, the degree to which a respondent feels responsible as a professional to use the innovation, was mentioned 71 times by all the respondents. Given their large quantity of knowledge about their clients and possession of their medical records, six of the seven caregivers and nurses see it as their responsibility to fill out the PROSPER-ID2. As a result, they consider it important to fill out the PROSPER-ID2 themselves and inform the team about the actions which need

to be executed. A caregiver stated: 'Caregivers monitor the clients file and I think it is up to us to then explain the actions to the rest of the team'. This sense of responsibility results in the caregivers and nurses filling out the PROSPER-ID2. The nurse specialists are divided over who is responsible. On the one hand, they consider it an important component of their profession because the PROSPER-ID2 contributes to the quality of care. In addition, nurse specialist are increasing the medical alertness among pedagogically trained employees, for which, according to them, the PROSPER-ID2 is a helpful tool. On the other hand, the nurse specialist state that they are taking on an increasing amount of work and activities, therefore the implementation cannot continue to be their responsibility. The sense of not being responsible has a negative influence on the process around de PROSPER-ID2. Nurse specialists suggest that 'area nurses' (see also: unsettled organization) can play a major role in the implementation of the PROSPER-ID2. The implementation and assessment should, according to nurse specialists, be handled by area nurses, the nurse specialists should have an umbrella function and combine the results on a national level. To sum, caregivers' sense of professional obligation results in more PROSPER-ID2s filled out and therefore has a positive influence. The ambiguity on professional obligation of the nurse specialist has a negative effect on the implementation of the PROSPER-ID2.

## 20. Staff capacity

The degree to which there is adequate staffing in the department or in the organization was mentioned 32 times by 12 respondents. Respondents indicate that staff shortages are a transcending problem in the national labor market. Within the team of nurse specialists, staff capacity is a problem because the five nurse specialists do not cover the entire nation. As a result, the PROSPER-ID2 cannot be introduced and thus implemented at all locations, all the five nurse specialists emphasise this. Locations vary in staffing ratios. At some locations insufficient staff capacity results in caregivers needed in the basic care, this makes it challenging to fill out the PROSPER-ID2. Four caregivers and nurses indicated not to have adequate staffing in their team, this resulted in diminished completion of the PROSPER-ID2. However, there are locations where the staff capacity has remained constant over the years, this benefits the completion of the PROSPER-ID2, two respondents stated this.

# 21. Descriptive norm

The degree to which colleagues use the innovation was brought up 17 times by 9 respondents. Due to differences in the degree of implementation of the PROSPER-ID2 between nurse specialists, four nurse specialist experiences less work pressure to implement the PROSPER-ID2: 'I do notice that when we spoke live in Amersfoort last time, I heard from colleagues that, for example they got back only six or seven PROSPER-ID2s while I already got thirty back. Because of that, I experience less work pressure'. An other nurse specialists claims that this has no influence on her degree of implementation. It is unknown to caregivers if colleagues also fill out the PROSPER-ID2, however two caregivers indicate that this has no significant impact on their completion.

# 22. Subjective norm

Six people mentioned nine times something about the extent people expect them to use the PROSPER-ID2. Two respondents stated that people did not expect them to use the PROSPER-ID2, whereas four respondents indicated to be expected to use the PROSPER-ID2. One of the caregivers stated that she filled out the PROSPER-ID2 because she had agreed to do so and felt under the obligation to complete it. A nurse specialist asserted that although they encounter expectations, their ability to advocate for themselves and express their requirements means that this does not affect the extent of implementation of the PROSPER-ID2. Respondents point out that if people expect them to use the PROSPER-ID2, they are more likely to fill out the form, therefore subjective norm has a positive influence.

# 23. Relevance for client

The degree to which the user believes the innovation is relevant for his/her client was mentioned 37 times by 12 respondents. 11 respondents indicate the PROSPER-ID2 to be relevant for his/her client and therefore fill out the PROSPER-ID2 more. Respondents note an improvement in the care provided to their clients as a results of the updated medical information due to the PROSPER-ID2. It is immediately visibly which components from the medical dossier are missing and which matters have not been agreed on. The PROSPER-ID2 is according to the respondents, a useful instrument in identifying clients' problems when they are unable to effectively explain themselves. The perceived degree of relevance for clients ensures that caregivers complete the PROSPER-ID2 for more clients.

## 24. Unsettled organization

6 respondents mentioned 29 times the degree to which other changes in the organisation are affecting the implementation of the PROSPER-ID2. Due to underexposure of the nursing component of the care within Philadelphia, nowadays this component of care is currently receiving increasing attention in the organisation. However, the medical component must still be promoted and defended inside a pedagogic organization. An upcoming function differentiation is a change in the organisation which may affect the implementation of the PROSPER-ID2, named by all the six respondents. According to these new profiles, the PROSPER-ID2 will be included in the job description of an 'area nurse'. An area nurse will be placed between de nurse specialists, who will work nationwide and the nurses working on the locations. It is expected that the implementation will be accelerated after these profiles are released.

#### 25. Performance feedback

All the respondents mentioned the degree to which feedback is provided about the use of the PROSPER-ID2, it was noted 31 times. 11 respondents indicated not to be provided with feedback and this negatively influencing the completion of the PROSPER-ID2. The interviewees revealed that there isn't much feedback on the use of the PROSPER-ID2 at other locations. Some caregivers suggest to obtain feedback to, for example, spar with other locations or to share experiences and tips. According to them, this would positively influence the completion of the PROSPER-ID2 and the execution of the actions. One caregiver stated: 'I would like to know that there are also certain problems at other locations, so that we can discuss this together: how are other locations going to solve those problems?'.

# Additional findings

Ten respondents indicated, when answering the question about performance feedback, fifteen times to be rarely updated on the status of implementation. Four nurse specialists, one caregiver and two nurses mentioned they would like more feedback since it might give the implementation of the PROSPER-ID2 a direction and a goal. One nurse said: 'Well, I'm very curious about how this implementation is progressing and maybe that's also from my research background, but I would really like to know what improvements it brings and how you can really use it as a tool, as a standard tool which everybody knows.'. Respondents state that more feedback would stimulate the implementation of the PROSPER-ID2.

#### Main determinants

After reviewing the percentual frequency of respondents, the percentage of respondents who mentioned a positive or negative effect of the determinant on implementing the PROSPER-ID2, as well as the percentual frequency responses, the percentage of the total number of times a determinant was mentioned in relation to the total, seven main determinants were selected (table 4 and 5). These seven determinants show the most important experiences of the involved stakeholders, as well as the benefits and drawbacks for Philadelphia, together they establish the value of the PROSPER-ID2; social support, time available, personal benefits and drawbacks, outcome expectations, formal ratification by management, professional obligation and performance feedback.

# 4.2.3 Recommendations

Respondents were asked how they would improve the implementation and completion of the PROSPER-ID2. Several recommendations made by the respondents will be described below.

Five respondents recommend to reformulate the PROSPER-ID2, the questions need to be more understandable for the nurses and caregivers in order to be effectively implemented. One respondents states: 'We are, I think for about three or four months, of the opinion that PROSPER-ID2 must and will be different. And by different I mean better, simpler, shorter, more manageable for the employee to fill out'. Nine respondents suggest the PROSPER-ID2 to return annually. A cyclical embedding would ensure continuation of the PROSPER-ID2 and ensure medical information of the client to be maintained. Moreover, giving the PROSPER-ID2 a place in the ECF is deemed desirable by eight respondents. The PROSPER-ID2 could be stored and updated in the ECF, additionally a reminder for completion might be sent out annually and the ECF could be used to identify predictive characteristics. Four out of five nurse specialists and the manager indicated that the implementation and assessment of the PROSPER-ID2 should done by area nurses. One nurse specialist said: 'In my desired situation, the completion of the PROSPER-ID2s would remain at the locations, but the implementation and assessment of this lies with an area nurse'. Other recommendations made by respondents was to include a pop-up window with additional information, such as guide lines or to add a style guide with information about the PROSPER-ID2.

# 5. Discussion

This research aimed to determine the value of the PROSPER-ID2 for the involved stakeholders and for Philadelphia. Additionally, the aim was to give advice on how the value can be in increased. In order to do so, three sub questions were formulated. Firstly the experiences of the involved stakeholders needed to be identified, secondly the benefits and drawbacks with the use of the PROSPER-ID2 were described, lastly it needed to be determined how the value could be increased. Results showed seven main determinants influencing the implementation of the PROSPER-ID2. In this chapter the main findings and recommendation will be discussed, implications are addressed, limitations are pointed out and lastly, recommendations for future research will be made.

# 5.1 Main findings and recommendations

## 5.1.1 Main findings

In this study, the following two sub question were formulated: What are the experiences of the involved stakeholders with the use of the PROSPER-ID2? and What are the benefits and drawbacks for Philadelphia?. The respondents experience the PROSPER-ID2 as a useful tool that enhances the process of care for their clients. The main reason for this is the many benefits that the PROSPER-ID2 brings. However, there are also a number of determinants on which the experience of the respondents could be improved. The respondents see both benefits and drawbacks for the organization when introducing and completing the PROSPER-ID2. The four determinants which have the biggest influence on the experiences and the benefits and drawbacks will be discussed in the following paragraphs.

One of the main determinants is social support. Social support is experienced by many respondents. They mention the assistance from colleagues and nurse specialists. The PROSPER-ID2 is filled out more and to a larger extent because of this help and cooperation. Research of Radealli et al. (2014) show a direct link between cooperation in the form of knowledge sharing and engagement in implementing innovation (Radaelli et al., 2014). The organizational support theory also underlines that perceived organisational support is associated with a more positive behavioural outcomes (Lakely & Cohen, 2000). Nevertheless, the nurse specialists asserted that more support from management is preferred with regards to, for instance, determining the implementation strategy and establishing goals. Hasson et al. (2014) states that management plays a crucial part in the implementation process of an intervention, their responsibility is next to providing support with words, to implement formal organizational policies into daily practice. However, the support from management for health interventions in general has been reported not to be sufficient enough for implementing an innovation. This lack of support (Hayton et al., 2012) is proven to have a negative effect on the commitment of employees on the intervention, similar to the process of the PROSPER-ID2. Therefore the support from the management to the PROSPER-ID2 needs to be increased when it comes to determining goals and implementation strategies.

The second important determinant is time available. Although respondents indicate they do not have enough time to complete the PROSPER-ID2, they nonetheless make time for it since they value it highly. The results indicated that insufficient time prevented the PROSPER-ID2 from being completed. Another significant drawback identified was the reduced time for the direct care for their client as a result of the lack of sufficient time. Acar at el. (2019) state that the time assigned for an innovation need to be a compelling challenge, in this way efforts are more concentrated on a firmly established path forward. Nonetheless Philadelphia should facilitate their employees with sufficient time to properly fill out the PROSPER-ID2 and not increase their workload. This could be done by establishing a certain amount of time that a caregiver or nurse can spend on the PROSPER-ID2 per

client, per year. Moreover, the questions from the PROSPER-ID2 could be filtered by carevision, for example by automatically selecting questions that are only relevant to the syndrome of the client. This will diminish the time required per client.

The third key determinant is the personal benefits and drawbacks respondents experience using the PROSPER-ID2. Numerous benefits were addressed by the respondents including: prevention, improvement of care and medical information being up-to-date. Additionally, a few drawbacks were mentioned, for instance the extra workload. Having personal advantages is, as also seen in other studies, emphasized as an important determinant for the acceptance and adoption of innovations (Ma & Liu, 2011). According to the Diffusion of Innovation theory, the adoption of an innovation is influenced by the perceived benefits an innovations offers. These perceived advantages play a vital role in individuals accepting and using the innovation. The disadvantages of an innovation could postpone or hinder the adoption. Additionally, personal benefits and drawbacks can be regarded as an component of the Perceived Usefulness in the Technology Acceptance Model (TAM) (Ma & Liu, 2011). The TAM was developed to explain how technologies are adopted and used, two main determinants in this theory are the Perceived Usefulness and Perceived Ease of Use. The Perceived Usefulness influences attitude of a user and the intention to adopt a technology. This intention is considered to be a key indicator of actual usage behavior. Therefore it can be concluded that the personal benefits and drawbacks are important when it comes to the implementation of the PROSPER-ID2. Philadelphia should emphasize the personal benefits, this could be done by communicating the experienced benefits to other caregivers and nurses who are doubting to use the PROSPER-ID2 to increase the perceived usefulness. Benefits which can be communicated are; prevention and thereby the early detection of symptoms, improvement in the quality of life for their clients and a better understanding of their client medical situation. Moreover Philadelphia should attempt to avoid the personal drawbacks such as extra workload and the PROSPER-ID2 being time consuming by providing support with regulations and policies about the time and objectives established by management (see time available and formal ratification by management).

The fourth determinant which was found to be important in this study is outcome expectations. Respondents indicated that no objectives were established in advance, therefore it was unclear which objectives ought to be fulfilled. During the implementation phase no clear objectives were established. After a few months objectives only regarding the goals of the PROSPER-ID2 were determined in consultation with the nurse specialists and the manager. However, they were not broadly communicated and ambiguity about the goals remained. The Theory of Goal Setting (Locke & Latham, 2002) states that goal setting plays an important role when adopting and executing an innovation, this theory emphasizes the importance of establishing precise goals. Well-defined objectives provide direction and focus, this has a positive influence on the motivation and performance of the employees. It is also important for employees (Locke et al., 1988) to commit to the established objectives, this will enlarge the motivation and determination. Employees are, in contrary, less likely to employ the innovation if goals are not clear. Therefore clear objectives need to be established by management about the intention of the use of the PROSPER-ID2 and about the quantity of PROSPER-ID2s needed to be filled out in an preestablished amount of time. These objectives need to be clearly communicated to nurse specialists, caregivers and nurses in order to implement the PROSPER-ID2 successful.

In the following paragraphs, the three main explanatory determinants will be discussed. Together with the four determinants which have the biggest influence on the experiences and value, they serve as the foundation for the recommendations which will be given in 5.1.2. These

recommendations will give answer to the third research question: How can the value of the use of the PROSPER-ID2 be increased?.

The first explanatory determinant is formal ratification by management. The lack of agreements on the PROSPER-ID2 caused unclearness for the respondents. Respondents indicated that they could not convey the usefulness, locations did not fill out the PROSPER-ID2 because no agreements were made, it was unclear where the responsibilities lie, the care after advices is not arranged, no agreements on facilitating in time and lastly continuation is not secured. Because of this, the PROSPER-ID2 was not always implemented and advices were not always followed up. Facilitating Conditions described in the Unified Theory of Acceptance and Use of Technology (UTAUT) model corresponds to the formal ratification. The UTAUT model (Badan & Igeria, 2018) aims to provide insight on the influence the adoption and use of technology have in different contexts. Facilitating Conditions refer to the extent to which an individual perceives the organizational infrastructures necessary to use are available. The effective use of technology relies on the availability of Facilitating Conditions. Therefore the management of Philadelphia should establish agreements. Agreements regarding reliability should be made, to clarify where responsibilities for implementation, completion, assessment and carrying out the advices lie. Moreover time facilities need to be included in policies so that time needed for the PROSPER-ID2 is not used off the time for daily care. Additionally agreements must be made about providing care after advices, so that advices are not disregarded because it cannot be followed up for example due to a lack of money. Also continuation of the PROSPER-ID2 needs to be secured by embedding the PROSPER-ID2 in the ECF and returning it cyclically.

The second explanatory determinant is professional obligation. Caregivers stated to fill out the PROSPER-ID2 because they feel it is their responsibility, for instance because they have a large amount of knowledge about their client. In contrary, nurse specialists did not feel as responsible because of their increasing workload. This had a negative influence on filling out the PROSPER-ID2. According to the model of Psychological Ownership (Pierce et al., 2001), responsibility leads to ownership, this results in more drive and concern for the work that needs to be done. Employees who feel responsible are more likely to commit to their task. To the contrary, employees who do not feel responsible can experience stress and frustration and therefore may not give their task their full commitment. According to this model, organizations can support their employees to create a sense of ownership, this can results in higher motivation and better performance and a positive work environment. Therefore Philadelphia must support caregivers and nurse specialists in their sense of responsibility. This can be done by empowering caregivers in their sense of ownership and enabling nurse specialist to delegate their responsibilities.

The final explanatory determinant is performance feedback. Both caregivers, nurses and nurse specialists indicated very little feedback on their performance, this included implementing, filling out, giving- and following up the advices. Moreover, caregivers and nurses received no feedback on their performance and experiences on other locations. Filling out and implementing the PROSPER-ID2 will be positively influenced by feedback, according to caregivers, nurses and nurse specialists. According to the Goal Setting theory (Locke & Latham, 2002), people who received feedback on several facets of their performance improved their performance. Locke and Latham (2002) state that without feedback, it is hard for employees to change their performance strategies or the direction or amount of their effort. Therefore, Philadelphia should provide both caregivers and nurse specialists with feedback about their performance. This feedback could include information regarding the process of filling out the PROSPER-ID2 and about their follow up on the advices given.

# 5.1.2 Recommendations

Taking into account the determinants which influence the experience and value, the explanatory determinants and the given recommendations from the respondents the following specific recommendation are made to Philadelphia in order to increase the value of the use of the PROSPER-ID2. These recommendation give answer to the third research question: How can the value of the PROSPER-ID2 be increased? In table six, an overview of the recommendation per determinant is given.

Table 6: Overview recommendations per determinant

Determinant	Recommendations
Social support  Problem: More support from management needed	<ol> <li>Supporting and facilitating assistance and collaboration between caregivers.</li> <li>Increase managerial support for the PROSPER-ID2 to nurse specialists regarding determining goals and</li> </ol>
Time available  Problem: Not enough time to complete the PROSPER-ID2	implementation strategies.  3. Philadelphia should facilitate their employees with sufficient time to properly fill out the PROSPER-ID2 without increasing the workload by establishing a certain amount of time that can be spend on the PROSPER-ID2 per client per year.
	4. The questions from the PROSPER-ID2 could be filtered by carevision, for instance by automatically selecting questions that are only relevant to the syndrome of the client. This will diminish the time required per client.
Personal benefits and drawbacks  Conclusion: Personal benefits and drawbacks are important when it comes to the implementation of the PROSPER-ID2	5. Philadelphia should emphasize the personal benefits such as prevention and understanding of their client experienced by the respondents by communicating the experienced benefits to caregivers who are doubting about using the PROSPER-ID2 to increase perceived usefulness.
	6. Attempt to avoid the personal drawbacks such as extra workload and the PROSPER-ID2 being time consuming by providing support with regulations and policies about the time and objectives established by management.
Outcome expectations  Problem: No objectives were established in advance, therefore it was unclear which objectives ought to be fulfilled	7. Clear objectives need to be established by management about the intention of the use of the PROSPER-ID2 and about the quantity of PROSPER-ID2s needed to be filled out in an preestablished amount of time. These objectives need

	to be clearly communicated to nurse specialists, caregivers and nurses in order to implement the PROSPER-ID2 successful.
Formal ratification by management  Problem: The lack of agreements on the  PROSPER-ID2 caused a lot of unclearness for the  respondents	<ol> <li>Agreements regarding responsibilities should be made to clarify where responsibilities lie.</li> <li>Time facilities need to be included in policies.</li> <li>Agreements about providing care after advices need to established.</li> <li>Secure continuation by embedding the PROSPER-ID2 in the ECF and let it return cyclically.</li> </ol>
Professional obligation Problem: Nurse specialists do not feel responsible for implementation	<ul> <li>12. Empowering caregivers in their sense of ownership by giving them more responsibilities when it comes to filling out the PROSPER-ID2 and following up the advices.</li> <li>13. Enabling nurse specialist to delegate their responsibilities.</li> <li>11.1 Giving area nurses the responsibility of assessing the PROSPER-ID2.</li> </ul>
Performance feedback Problem: Little feedback is provided to caregivers and nurse specialists	14. Philadelphia should provide both caregivers and nurse specialists with feedback about their performance, about the performance of other locations. This feedback should include information regarding the process of filling out the PROSPER-ID2 and about the follow up on the advices given.
Other	<ul> <li>15. Including a pop-up with extra information and protocols to the question.</li> <li>16. Adding a style guide with more information about the purpose, duration and content of the PROSPERID2.</li> </ul>

# 5.2 Implications

This is the first study to investigate the experiences and use with the PROSPER-ID2 by nurse specialists, caregivers, nurses and mangers. The results of this study can contribute to the organization-wide implementation of the PROSPER-ID2 by Philadelphia. The study is also of interest to other care organisations for people with ID interested in implementing the PROSPER-ID2.

Moreover, this study supposed a cyclical and continuous characteristic of the implementation process. Experiences from the implementation process were seen as factors which influenced further implementation and continuation of the PROSPER-ID2. The determinant Personal benefits and drawbacks, for example, lends to support this notion. Benefits, which led to a positive experience influenced the implementation of the PROSPER-ID2 positively. It is therefore advisable to explicitly include this in the model and the theory. This could be done by adding this notion via an arrow in the figure, as done in this study (Figure 1).

#### 5.3 Limitations

In this research, thirteen interviews were coded, one researcher completed the coding. Even though the coding was checked by a supervisor, intercoder reliability was not checked. As a result, there is a possibility that some codes or determinants were overlooked. This might have weakened the overall reliability of the study.

The questions developed in by Fleuren et al. (2014), utilized in this study, caused ambiguity in the answers to certain questions during the interviews. For example, when questioned about performance feedback, respondents frequently indicated that they desire feedback on the implementation process. As a result, not all questions may have been correctly answered, decreasing both reliability and construct validity.

All the respondents have long histories of employment in Philadelphia and in the healthcare industry. Consequently, the results may not apply to beginning caregivers and nurses and therefore generalizability cannot be guaranteed.

In this study, the experiences of the important stakeholders with the PROSPER-ID2 were investigated. However, because the PROSPER-ID2 had only been recently implemented, not all respondents had an extensive amount of experience with filling out the PROSPER-ID2. Some respondents only filled out the PROSPER-ID2 for only two or three clients. This might have influenced their experienced and with that the findings of this study. However, the early stage in which this study took place, also have advantages because in this phase, adjustments could still be made with the recommendations given in this study.

# 5.4 Suggestions for further research

As stated in the limitations part, only one researches coded the reports. To avoid possible errors and limit the information bias, two researchers can code the interview to check for intercoder reliability.

This study made some specific recommendations, an evaluation study could be conducted to assess the effects of these improvements. This is relevant because it allows to examine the effects of this study's recommendations. This evaluation study could determine the experiences with and the value of the PROSPER-ID2 of the same target group and their experiences with and the value of the PROSPER-ID2 after the adoption of the recommendations.

Philadelphia has not yet finished the implementation process of the PROSPER-ID2 because it was introduced less than half a year ago. Therefore this study should be reperformed when the implementation of the PROSPER-ID2 is finished. By doing so, more caregivers can be included and the caregivers will have more experience in filling out the PROSPER-ID2. Therefore the results can be differ.

Several advices follow from the PROSPER-ID2. These advices could be analysed in order to give more generalised advices within Philadelphia. For instance, if it frequently appears from the PROSPER-ID2 that clients with a certain intellectual disability should have their vision and hearing checked, this could be communicated as a general advice within the organisation.

Lastly, relatives were not included in this study as respondents because no relatives had filled out the PROSPER-ID2 during the recruitment phase of this this study. It was intended to involve relatives when filling out the PROSPER-ID2 this has not yet happened at this phase of implementation, however it is expected that this participation will occur in the future. Relatives are then also an important stakeholder with experiences and an opinion on the value of the PROSPER-ID2 which are interesting to investigate. Therefore relatives could be included in future research.

# 6. Conclusion

The aim of this study was to determine the value of the PROSPER-ID2 for the involved stakeholders and for Philadelphia and give advice on how this value can be increased.

The following seven determinants showed the most important experiences of the involved stakeholders, as well as the benefits and drawbacks for Philadelphia, together they established the value of the PROSPER-ID2; social support, time available, personal benefits and drawbacks, outcome expectations, formal ratification by management, professional obligation and performance feedback.

Respondents indicated that they experienced the PROSPER-ID2 to be very valuable in their work. However they also experienced a few drawbacks and identified a few problems when implementing and using the PROSPER-ID2. Therefore 17 recommendations were made to give advice on how the value of the PROSPER-ID2 can be increased. In short these recommendations focus on supporting and facilitating different aspects of the PROSPER-ID2, set clear objectives and review the responsibilities.

To conclude, respondents highly valued the PROSPER-ID2, it has a lot of advantages for their work and their clients. However some drawbacks were addressed, recommendations to these drawbacks can increase the value of the PROSPER-ID2.

Further research should focus on the analysis of the advices given after filling out the PROSPER-ID2 to give more generalisable advices in the organisation moreover, this research can be reperformed aften the completion of the implementation process.

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# **Appendix**

# Appendix A

An overview of determinants in the MIDI (Fleuren et al. 2014).

Determinants associated with the innovation	
1 Procedural clarity (e)	5 Compatibility (e)
2 Correctness (e)	6 Observability (e)
3 Completeness (e)	7 Relevance for client (e)
4 Complexity (e)	
Determinants associated with the adopting pe	rson (user)
8 Personal benefits/drawbacks (e)	14 Descriptive norm (e)
9 Outcome expectations (e)	15 Subjective norm (e)
10 Professional obligation (t)	16 Self-efficacy (e)
11 Client/patient satisfaction (e)	17 Knowledge (t)
12 Client/patient cooperation (t)	18 Awareness of content of innovation (e)
13 Social support (e)	
Determinants associated with the organisation	1
19 Formal ratification by management (e)	24 Material resources and facilities (t)
20 Replacement when staff leave (e)	25 Coordinator (e)
21 Staff capacity (t)	26 Unsettled organisation (p)
22 Financial resources (t)	27 Information accessible about use of the innovation (e)
23 Time available (e)	28 Performance feedback (e)
Determinants associated with the socio-politic	al context
29 Legislation and regulations (t)	•
/-> t d dt t f dt i - i l d	•

- (e) based on the meta-analyses of the empirical data
- (t) based on theoretical expectations of implementation experts
- (p) based on practical experience of implementation experts

Appendix B
In this appendix an overview is given of the determinants, description, operationalization and stakeholders based on the MIDI (Fleuren et al., 2014).

	Detern	ninant	Description	Operationalisation	Stakeholders
Determinants associated with the PROSPER- ID2	1)	Procedural clarity	Degree to which the PROSPER-ID2 is described in clear steps/ procedures	Does the PROSPER_ID describes the activities you should perform and in which order clearly?	Nurse specialists Caregivers / Nurses
	2)	Completeness	Degree to which the activities described in the PROSPER-ID2 are complete	Does the PROSPER- ID2 provide all the information and materials you need to work with it properly?	Nurse specialists Caregivers / Nurses
	3)	Complexity	Degree to which the implementation of the PROSPER-ID2 is complex	Is conducting the PROSPER-ID2 is too complex for you?	Nurse specialists Caregivers / Nurses
	4)	Compatibility	Degree to which the PROSPER-ID2 is compatible with the values and working method in place	To what extent does the PROSPER-ID2 match well with the values and working methods you are used to?	Nurse specialists Caregivers / Nurses Managers
	5)	Observability	The outcomes are visible for the user	Are the outcomes (actionpoints) of the PROSPER-ID2 clearly observable?	Nurse specialists Caregivers / Nurses Managers
Determinants associated	6)	Personal benefits/drawbacks	Degree to which the PROSPER-ID2 has advantages or disadvantages for the user	To what extent does using the PROSPER-ID2 have personal benefits/drawbacks for you?	Nurse specialists Caregivers / Nurses Managers
with the user	7)	Outcome expectations	Perceived probability and importance of achieving the client objectives as intended by the PROSPER-ID2	Which objectives do you think are important to achieve for your client when using the P ROSPER-ID2? Which objectives does the PROSPER-ID2 actually achieve for your client?	Nurse specialists Caregivers / Nurses Managers
	8)	Client satisfaction	Degree to which the user expects clients to be satisfied with the PROSPER-ID2	To what extend are clients generally satisfied if you use the PROSPER-ID2?	Nurse specialists Caregivers / Nurses
	9)	Client cooperation	Degree to which the user expects clients to cooperate with the PROSPER-ID2	To what extend do clients cooperate when conduncting and following up the	Caregivers / Nurses

			action points if you use the PROSPER-ID2?	
	10) Social support	Support experienced or expected by the user from important social referents relating to the use of the PROSPER- ID2	Can you count on support from important social referents (such as colleagues or management) when using the PROSPER- ID2?	Nurse specialists Caregivers / Nurses Managers
	11) Self-efficacy	Degree to which the user believes he or she is able to implement the activities involved in the PROSPER-ID2	Are you able to put the PROSPER-ID2 into practice?	Nurse specialists Caregivers / Nurses Managers
	12) Knowledge	Degree to which the user has the knowledge needed to use the PROSPER-ID2	Do you have the knowledge needed to use the PROSPER-ID2?	Nurse Specialists Caregivers / Nurses Managers
Determinants associated with the organization	13) Time available	Amount of time available to use the PROSPER-ID2	Did/does Philadelphia provide you with enough time to include the PROSPER-ID2 as intended in my day- to-day work?	Nurse specialists Caregivers / Nurses Managers
	14) Material resources and facilities	Degree to which materials and other resources or facilities necessary for the implementation and conduction of the PROSPER-ID2 are available	Does Philadelphia provide you with enough materials and other resources or facilities necessary for the use of the PROSPER-ID2 as intended?	Nurse specialists Caregivers / Nurses Managers

# Determinants that may affect the implementation

	Determinant	Description	Operationalisation	Stakeholders
Determinants associated with the PROSPER- ID2	Relevance for patient	Degree to which the user believes the PROSPER-ID2 is relevant for his/her client	Do you think the PROSPER-ID2 is relevant for your patients?	Nurse specialists Caregivers / Nurses Managers
	2) Professional obligation	Degree to which PROSPER-ID2 fits in with the tasks for which the user feels responsible when doing his/her work	Do you feel it is your responsibility as a healthcare professional to conduct the PROSPER-ID2?	Nurse specialists Caregivers / Nurses Manager
	3) Descriptive norm	Degree to which colleagues use the PROSPER-ID2	In your opinion, what proportion of the colleagues in Philadelphia for whom the PROSPER-ID2 is intended actually use the PROSPER-ID2?	Nurse specialists Caregivers / Nurses Managers
Determinants associated with the user	4) Subjective norm	The influence of important others on the use of the PROSPER-ID2	To what extent do managers and nurse specialists expect you to use the PROSPER-ID2? When it comes to working in accordance with the PROSPER-ID2, to what extent do you comply with the opinions of managers and nurse specialists?	Nurse Specialists Caregivers / Nurses
	5) Awareness of content of innovation	Degree to which the user has learnt about the content of the PROSPER-ID2	To what extent are you informed about the content of the PROSPER-ID2?	Nurse specialists Caregivers / Nurses Managers
Determinants associated with the organization	6) Formal ratification by management	Formal ratification of the PROSPER-ID2 by management, for example by including the use of the PROSPER-ID2 in policy documents	Has the management set up formal arrangements in Philadelphia relating to the use of the PROSPER-ID2 (in policy plans, work plans and so on)?	Nurse specialists Managers
	7) Staff capacity	Degree to which the staffing in Philadelphia for using the PROSPER-ID2 is adequate	Are there enough people in Philadelphia to use the PROSPER-ID2 as intended?	Nurse specialists Caregivers / Nurses Managers
	8) Coordinator	The degree to which one or more persons responsible for	Are there one or more people designated to coordinate the process	Nurse specialists Managers

9) Unsettled organisation	coordinating the process of implementation of the PROSPER-ID2 are present  Degree to which there are other changes in progress (organisational or otherwise) that represent obstacles to the process of implementing the PROSPER-ID2	of implementing the PROSPER-ID2 in Philadelphia?  Are there, in addition to the implementation of the PROSPER-ID2 any other changes in the organization affecting the implementation of the PROSPER-ID2 now or in the foreseeable future (reorganization, merger, cuts, staffing changes, other innovations)?	Nurse Specialists Managers
10) Information accessible abouse of innova		Is it easy for you to find information in your organization about using the PROSPER-ID2 as intended	Nurse Specialists Caregiver / Nurses Manager
11) Performance feedback	Degree to which feedback is given to the user of the PROSPER-ID2 about the process of implementation	Are you regularly provided with information about the process of implementation of the PROSPER-ID? Are you regularly provided with information about the value of the PROSPER-ID?	Nurse Specialists Caregiver / Nurses Manager

# Appendix C

## Concepts

Fleuren et al. (2014) are using the following concepts:

**Innovation**: "Innovations include, for instance, guidelines, protocols or programmes that are entirely or partly new for the intended group of users."

In this research the innovation will be the use of the PROSPER-ID2

**End user:** "Person or persons primarily targeted by an innovation (client, patient, pupils or other public groups)."

In this research the end user will be the client and the nurse specialists.

**Intermediary user:** Professionals whose actions determine the degree of exposure of end users to the innovation (doctors, nursing staff, teachers etc.)."

In this research the intermediary user will be the nurse specialists, the caregivers and nurses of the client and the managers.

**Implementation:** "In the implementation phase, the innovation is put into daily practice by intermediary professionals (= behavior)."

In this research the implementation is the use of the PROSPER-ID2 within Philadelphia. With this, the benefits and drawbacks occurring with the use of the PROSPER-ID2.

# Appendix D

In this appendix the interview schemes for the nurse specialists, caregivers, nurses and managers and are given.

#### Interviews scheme: nurse specialists

#### Introductie

Hallo.

Fijn dat u tijd heeft kunnen maken en bereid bent deel te nemen aan het onderzoek naar de waarde van de PGO-VB voor betrokkenen en Philadelphia. Ik ben Maaike, master student Health Sciences aan de Universiteit Twente. Ik ben op dit moment bezig met het onderzoek naar de PGO-VB, met dit onderzoek hoop ik de masteropleiding af te ronden.

Er is in het verleden nog geen onderzoek gedaan naar de ervaringen met de PGO-VB bij andere betrokkenen dan de huisarts. Daarom wil ik in dit onderzoek te weten komen wat de ervaringen zijn van betrokkenen en daarnaast wat de voordelen van het afnemen van de PGO-VB zijn voor Philadelphia. Het uiteindelijke doel van het onderzoek is een advies uitbrengen over het gebruik van de PGO-VB binnen Philadelphia. Daarom ben ik erg benieuwd naar uw mening, ervaring en perspectief met betrekking tot de PGO-VB.

Om dit doel te bereiken neem ik interviews af met verschillende betrokkenen: kwaliteitsverpleegkundigen, begeleiders, managers en familieleden. Het interview zal vooral bestaan uit open vragen en duurt ongeveer een driekwartier.

Ik wil graag benadrukken dat uw deelname aan het interview volledig vrijwillig en vertrouwelijk is, informatie die u geeft zal zonder toestemming niet verstrekt worden aan derden. Er zijn geen goede of foute antwoorden op de vragen. U bent niet verplicht te antwoorden en u mag op elk moment het interview beëindigen.

Heeft u nog vragen of opmerkingen ten aanzien van de introductie?

Voordat ik start met het interview wil ik u vragen of u toestemming geeft dit interview op te nemen zodat ik het later kan terugluisteren en analyseren. De opnames zullen veilig opgeslagen worden en (volgens UT beleid) tot 15 jaar na gebruik bewaard blijven. Gaat u hiermee akkoord? Dan start ik straks de opname en dan zal ik u nogmaals om toestemming vragen om dit gesprek op te nemen.

\*start opname\*

Heb ik uw toestemming om het gesprek op te nemen?

## Openingsvraag:

- 1. Zou u kort iets kunnen vertellen over uzelf en uw werkzaamheden binnen Philadelphia?
- Geslacht, leeftijd
- Functie, opleiding
- Groep clienten
- Jaren ervaring
- 2. In hoeverre maakt de PGO-VB deel uit van uw dagelijkse werkzaamheden?

#### Interview:

- 3. Kunt u voor mij het proces dat u doorloopt rondom het invoeren van de PGO-VB beschrijven?
- Is het duidelijk welke activiteiten u in welke volgorde moet uitvoeren?

- In hoeverre heeft u alle informatie die nodig is om de PGO-VB goed te kunnen invoeren op locaties?
- In hoeverre is het invoeren van de PGO-VB op locaties te complex? In hoeverre is het invullen van de PGO-VB voor begeleiders te complex?
- In hoeverre sluit de PGO-VB aan bij de manier van werken en uw werkzaamheden?
- In hoeverre zijn de actiepunten die uit de PGO-VB komen zichtbaar voor u?
- 4. Zijn er voldoende middelen en materialen beschikbaar om de PGO-VB goed af te nemen?
- Is er voldoende personeelsbezetting binnen jullie team en binnen de teams op de locaties?
- Is er voldoende tijd beschikbaar om de PGO-VB mee te nemen naar de locaties en actiepunten uit te zetten?
- Voldoende materialen beschikbaar → laptop?
- 5. In hoeverre biedt het gebruik van de PGO-VB voor u persoonlijk voor- of nadelen?
- Welke doelen zijn bereikt na het inzetten van de PGO-VB voor u, cliënten en de organisatie?
- In hoeverre biedt het gebruik van de PGO-VB voor of nadelen voor de cliënten?
- 6. In hoeverre wordt u ondersteund bij het invoeren van de PGO-VB en uitzetten van actiepunten?
- Kunt u rekenen op support van collega's of management bij het invoeren van de PGO-VB?
- In hoeverre wordt er van u verwacht (door managers/ collega's) dat u de PGO-VB implementeert/ meeneemt naar locaties?
- In hoeverre gebruiken, volgens u, andere kwaliteitsverpleegkundigen binnen uw team de PGO-VB ook daadwerkelijk?
- In hoeverre vindt u de het invullen en uitzetten van vervolgacties van de PGO-VB uw verantwoordelijkheid?
- 7. In hoeverre heeft u het idee over voldoende vaardigheden en kennis te beschikken om de PGO-VB te kunnen inzetten op locaties en actiepunten uit te kunnen zetten?
- Op welke manieren heeft u de kennis opgedaan/ is er kennis verstrekt die nodig is om de PGO-VB in te voeren in de praktijk?
- Bent u in staat geweest de PGO-VB te integreren binnen uw dagelijkse werkzaamheden?
- 8. In hoeverre zijn er binnen Philadelphia formele afspraken vastgelegd door het management over het gebruik van de PGO-VB?
- 9. Zijn er veranderingen in de organisatie aankomend die de implementatie van de PGO-VB kunnen beïnvloeden?
- 10. In hoeverre vindt er terugkoppeling plaats over de voortgang van het gebruik van de PGO-VB binnen Philadelphia?

#### Overig

- 11. Hoe zou het proces rondom de PGO-VB verbeterd kunnen worden? (denk aan meenemen naar locaties/ uitzetten actiepunten)
- 12. Hoe zou het invullen van de PGO-VB verbeterd kunnen worden?
- 13. Zijn er nog factoren die het proces rondom de PGO-VB positief beïnvloeden die we nog niet genoemd hebben?
- 14. Denkt u dat de PGO-VB blijft in de toekomst? (Leg uit)
- 15. Heeft u verder nog toevoegingen of vragen?

Tot slot wil ik u graag hartelijk danken voor uw tijd en de informatie die u gegeven heeft. Mocht u verder geen opmerkingen of vragen hebben beëindig ik de opname.

#### Interviews scheme: caregivers / nurses

#### Introductie

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- 2. In hoeverre maakt de PGO-VB deel uit van uw dagelijkse werkzaamheden?

#### Interview:

- 3. Kunt u voor mij het proces dat u doorloopt rondom het invullen van de PGO-VB en uitzetten van actiepunten beschrijven?
- Is het duidelijk welke activiteiten u in welke volgorde moet uitvoeren?
- Heeft u voldoende informatie ontvangen om de PGO-VB goed in te vullen en vervolgacties uit te kunnen zetten?
- In hoeverre is het invullen van de PGO-VB te complex?
- In hoeverre sluit de PGO-VB aan bij de manier van werken en uw werkzaamheden?
- In hoeverre zijn de actiepunten die uit de PGO-VB komen zichtbaar voor u?

- In hoeverre zijn uw cliënten betrokken bij het invullen? In hoeverre werken ze mee tijdens het invullen? (zo nee, in hoeverre zijn verwanten betrokken bij het invullen)
- 4. Zijn er voldoende middelen en materialen beschikbaar om de PGO-VB goed in te vullen en actiepunten uit te zetten? (leg uit)
- Is er voldoende personeelsbezetting in jullie team?
- Is er voldoende tijd beschikbaar om de PGO-VB af te nemen?
- Voldoende materialen beschikbaar → laptop?
- 5. In hoeverre bied het gebruik van de PGO-VB voor u persoonlijk voor- of nadelen?
- Welke doelen zijn bereikt na het inzetten van de PGO-VB voor u, uw cliënten en de organisatie?
- In hoeverre biedt het gebruik van de PGO-VB voor of nadelen voor de cliënten?
- In hoeverre zijn uw cliënten tevreden (satisfied) als u de PGO-VB afneemt?
- 6. In hoeverre wordt u ondersteund bij het invullen en de vervolgacties van de PGO-VB?
- Kunt u rekenen op support van collega's of kwaliteitsverpleegkundigen bij het afnemen van de PGO-VB en het uitzetten van actiepunten?
- In hoeverre wordt er van u verwacht (door kwaliteitsverpleegkundigen/ collega's) dat u de PGO-VB invult?
- In hoeverre nemen, volgens u, andere begeleiders de PGO-VB ook daadwerkelijk af binnen uw team of op andere locaties binnen Philadelphia?
- In hoeverre vindt u de het invullen van de PGO-VB en uitzetten van actiepunten uw verantwoordelijkheid?
- 7. In hoeverre heeft u het idee over voldoende vaardigheden en kennis te beschikken om de PGO-VB te kunnen invullen en vervolgacties te kunnen uitzetten?
- Op welke manieren heeft u de kennis opgedaan/ is er kennis verstrekt die nodig is om de PGO-VB in te vullen en actiepunten uit te zetten in de praktijk?
- Bent u in staat geweest de PGO-VB in te vullen en vervolgacties uit te zetten binnen uw dagelijkse werkzaamheden? Is het gelukt om voor alle clienten de PGO-VB in te vullen? Zo ja, hoe is dat gelukt?
- 8. In hoeverre vindt er terugkoppeling plaats over de voortgang van de implementatie van de PGO-VB binnen Philadelphia ?

## Overig

- 9. Hoe zou het proces rondom de PGO-VB verbeterd kunnen worden? (denk aan meenemen naar locaties/ uitzetten actiepunten)
- 10. Hoe zou het invullen van de PGO-VB verbeterd kunnen worden?
- 11. Zijn er nog factoren die het proces rondom de PGO-VB positief beïnvloeden die we nog niet genoemd hebben?
- 12. Denkt u dat het PGO-VB blijft in de toekomst?
- 13. Heeft u verder nog toevoegingen of vragen?

Tot slot wil ik u graag hartelijk danken voor uw tijd en de informatie die u gegeven heeft. Mocht u verder geen opmerkingen of vragen hebben beëindig ik de opname.

#### Interviews scheme: managers

#### Introductie

Hallo.

Fijn dat u tijd heeft kunnen maken en bereid bent deel te nemen aan het onderzoek naar de waarde van de PGO-VB voor betrokkenen en Philadelphia. Ik ben Maaike, master student Health Sciences aan de Universiteit Twente. Ik ben op dit moment bezig met het onderzoek naar de PGO-VB, met dit onderzoek hoop ik de masteropleiding af te ronden.

Er is in het verleden nog geen onderzoek gedaan naar de ervaringen met de PGO-VB bij andere betrokkenen dan de huisarts. Daarom wil ik in dit onderzoek te weten komen wat de ervaringen zijn van betrokkenen en daarnaast wat de voordelen van het afnemen van de PGO-VB zijn voor Philadelphia. Het uiteindelijke doel van het onderzoek is een advies uitbrengen over het gebruik van de PGO-VB binnen Philadelphia. Daarom ben ik erg benieuwd naar uw mening, ervaring en perspectief met betrekking tot de PGO-VB.

Om dit doel te bereiken neem ik interviews af met verschillende betrokkenen: kwaliteitsverpleegkundigen, begeleiders, managers en familieleden. Het interview zal vooral bestaan uit open vragen en duurt ongeveer een driekwartier.

Ik wil graag benadrukken dat uw deelname aan het interview volledig vrijwillig en vertrouwelijk is, informatie die u geeft zal zonder toestemming niet verstrekt worden aan derden. Er zijn geen goede of foute antwoorden op de vragen. U bent niet verplicht te antwoorden en u mag op elk moment het interview beëindigen.

Heeft u nog vragen of opmerkingen ten aanzien van de introductie?

Voordat ik start met het interview wil ik u vragen of u toestemming geeft dit interview op te nemen zodat ik het later kan terugluisteren en analyseren. De opnames zullen veilig opgeslagen worden en (volgens UT beleid) tot 15 jaar na gebruik bewaard blijven. Gaat u hiermee akkoord? Dan start ik straks de opname en dan zal ik u nogmaals om toestemming vragen om dit gesprek op te nemen.

\*start opname\*

Heb ik uw toestemming om het gesprek op te nemen?

#### Openingsvraag:

- 1. Zou u kort iets kunnen vertellen over uzelf en uw werkzaamheden binnen Philadelphia?
- Geslacht, leeftijd
- Functie, opleiding
- Groep clienten
- Jaren ervaring
- 2. Op welke manier bent u betrokken bij de implementatie en het invullen van de PGO-VB?

#### Interview:

- In hoeverre sluit de PGO-VB aan bij uw manier van werken en uw werkzaamheden?
- In hoeverre zijn de actiepunten die uit de PGO-VB komen voor u van belang?
- 3. Zijn er voldoende middelen en materialen beschikbaar om de PGO-VB goed af te nemen?
- Is er voldoende personeelsbezetting op de afdelingen of in de organisatie?
- Is er voldoende tijd beschikbaar voor kwvp en begeleiders om de PGO-VB te implementeren en af te nemen?
- In hoeverre zijn er voldoende materialen beschikbaar voor kwvp en begeleiders om de PGO-VB te implementeren en af te nemen?

- 4. In hoeverre bied het gebruik van de PGO-VB voor u persoonlijk voor- of nadelen?
- Welke doelen zijn bereikt na het inzetten van de PGO-VB voor u, de organisatie en cliënten?
- 5. In hoeverre wordt u ondersteund bij het implementeren van de PGO-VB?
- Kunt u rekenen op support van collega's of kwaliteitsverpleegkundigen bij het implementeren van de PGO-VB?
- In hoeverre wordt er van u verwacht (door managers/ collega's) dat u de PGO-VB implementeert?
- In hoeverre implementeren, volgens u, kwaliteitsverpleegkundigen de PGO-VB ook daadwerkelijk?
- In hoeverre vindt u de implementatie van de PGO-VB uw verantwoordelijkheid?
- 6. In hoeverre heeft u het idee over voldoende vaardigheden en kennis te beschikken om de PGO-VB te kunnen implementeren?
- Op welke manieren heeft u de kennis opgedaan/ is er kennis verstrekt die nodig is om de PGO-VB te implementeren in de praktijk?
- Bent u in staat geweest de PGO-VB te implementeren binnen de dagelijkse werkzaamheden?
- 7. In hoeverre zijn er binnen Philadelphia formele afspraken vastgelegd door het management over het gebruik van de PGO-VB?
- 8. In hoeverre zijn er personen aangewezen die belast zijn met het coördineren van de invoering van de PGO-VB?
- 9. Zijn er veranderingen in de organisatie aankomend die de implementatie van de PGO-VB kunnen beïnvloeden?
- 10. In hoeverre vindt er terugkoppeling plaats over de voortgang van de implementatie van de PGO-VB binnen Philadelphia?
- 11. In hoeverre is er gebruikt gemaakt van een innovatie strategie bij het implementeren van de PGO-VB?

# **Overig**

- 12. Hoe zou het proces rondom de PGO-VB verbeterd kunnen worden? (denk aan meenemen naar locaties/ uitzetten actiepunten)
- 13. Hoe zou het invullen van de PGO-VB verbeterd kunnen worden?
- 14. Zijn er nog factoren die het proces rondom de PGO-VB positief beïnvloeden die we nog niet genoemd hebben?
- 15. Denkt u dat de PGO-VB blijft in de toekomst?
- 16. Heeft u verder nog toevoegingen of vragen?

Tot slot wil ik u graag hartelijk danken voor uw tijd en de informatie die u gegeven heeft. Mocht u verder geen opmerkingen of vragen hebben beëindig ik de opname.

# Appendix E

							Resp	Respondents							ī	Procentual	F	Procentual
Innovation Process	Determinant		Nurs	Nurse Specialists		Ma	Manager		Caregiver				Nurse			frequency	Frequncy	frequency
		1	7	3	4	S	9	7	<b>∞</b>	6	10	11	12	13	respondents	respondents	responses	responses
Dissemination	Procedural clarity	2	4	10	8	7	1	2	3	3	1	1	4	2	13	100%	48	%9
Adomtion	Completeness	9	8	9	0	1	0	0	0	0	0	1	0	0	5	42%	22	3%
Adopuon	Self-efficacy	0	2	0	0	1	0	0	0	0	0	3	3	0	4	31%	6	1%
	Complexity	8	3	4	4	4	1	0	0	4	1	12	10	7	11	95%	58	7%
	Compatibility	4	7	9	3	1	0	0	0	1	3	9	3	1	10	%LL	35	4%
	Client cooperation	9	1	0	0	0	1	20	2	4	1	3	9	3	10	100%	47	2%
Implementation	Social support	10	9	9	9	4	3	7	9	6	8	13	12	7	13	100%	26	11%
mprementation	Knowledge	3	2	8	9	8	0	6	10	6	8	2	11	15	12	95%	94	11%
	Time available	8	10	8	11	4	9	3	9	3	4	12	6	9	13	100%	06	10%
	Material resources														12	95%	27	3%
	and facilities	3	3	2	2	2	0	က	3	2	2	3	1	1				
	Observability	2	1	2	3	9	4	3	2	3	2	2	3	8	13	100%	44	2%
	Personal benefit/														13	100%	148	17%
Continuotion	drawback	19	14	10	14	8	7	6	11	25	8	8	8	7				
Commission	Outcome														13	100%	105	12%
	expectations	13	12	17	6	7	9	8	4	8	2	5	9	8				
	Client satisfaction	4	2	1	1	0	0	1	1	3	1	0	2	2	10	83%	18	2%

							Re	Respondents								Procentual	Frequencu	Procentual
Innovation Process	Determinant		Z	Nurse Specialists	s		Manager		Caregiver	er			Nurse		Frequency	frequency	responses	frequency
		1	2	3	4	5	9	7	8	6	10	11	12	13		respondents		responses
	Awareness of														6	%69	20	%9
	content of																	
	innovation	5	1	0	1	1	1	2	1	0	0	5	3	0				
	Formal ratification														12	100%	85	18%
	by management	4	7	11	5	10	4	1	3	2	1	3	0	7				
Dissemination	Coordinator	1	2	0	0	0	1	0	0	0	1	1	0	0	5	989	9	2%
	Information														2	15%	ю	1%
	accessible about the																	
	use of the																	
	innovation	0	2	1	0	0	0	0	0	0	0	0	0	0				
Adontion	Professional														13	100%	71	22%
Auopuon	obligation	9	∞	∞	6	9	2	4	Н	m	2	7	∞	4				
	Staff capacity	3	1	9	4	4	1	2	1	1	3	0	4	2	12	95%	32	10%
Implementation	Descriptive norm	1	2	4	3	2	0	1	0	0	1	1	2	0	6	%69	17	2%
	Subjective norm	0	0	1	2	0	0	1	0	0	2	0	1	2	9	20%	6	3%
	Relevance for cliënt	9	4	2	1	3	4	3	1	3	0	3	3	4	12	95%	37	11%
	Unsettled														9	100%	29	%6
Continuation	organisation	4	3	4	6	2	10	0	0	0	0	0	0	0				
	Performance														13	100%	31	%6
	feedback	2	1	2	5	2	1	3	2	3	2	2	2	1				