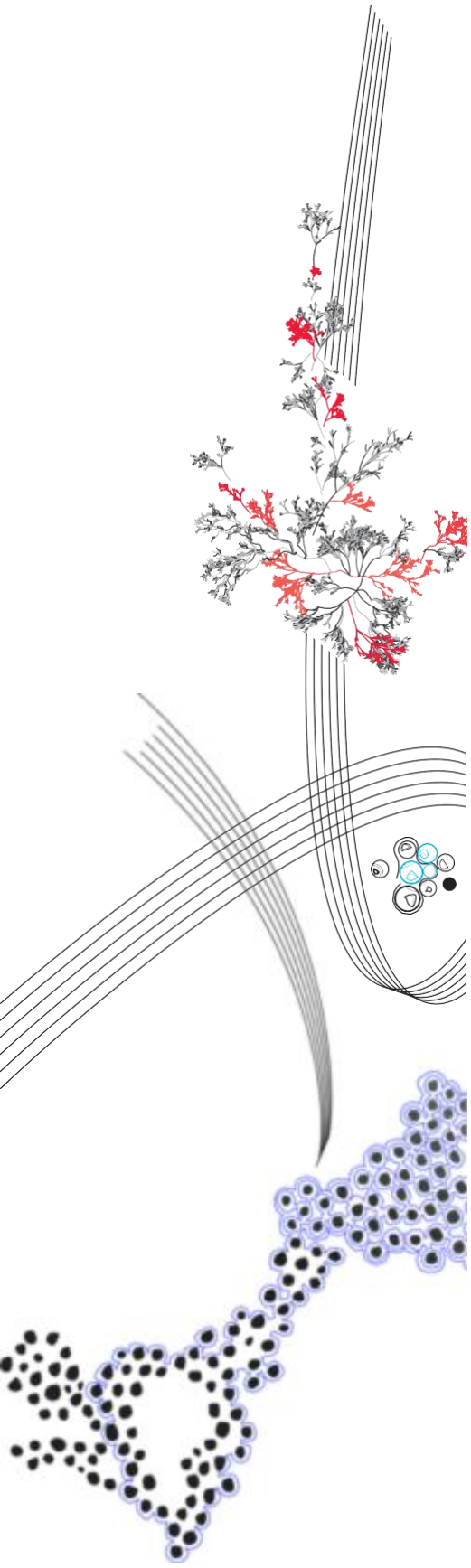

# The relation between absenteeism of direct care workers and incidents rates in the intellectual disability care at Baalderborg Groep.

A multi-method study on the incident reporting process and an analysis on whether incidents can be reduced.

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BAALDERBORG GROEP

**Master thesis**

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# Management summary

Incidents in intellectual disability (ID) care have an impact on clients, fellow clients, and direct care workers. This research investigates the relation between direct care worker absenteeism and incident rates of Baalderborg Groep (BBG), an organisation that provides ID care. This is studied to see if incident rates can be decreased by avoiding absenteeism, or that absenteeism does not have influence on the incident rates.

**Background**

Literature highlights several types of incidents in intellectual disability (ID) care, such as aggression, medication errors, and choking. However, due to a lack of research on these topics, available studies are limited. Literature reveals that not all direct care workers report incidents, often due to organisational and personal reasons such as time constraints, lack of feedback, or perceiving incidents as too minor. Staff turnover and absenteeism are common in ID care, affecting the continuity of care. Clients with ID have difficulties with adjusting to disruptions in this continuity, possibly leading to incidents.

BBG provides care to over 1200 clients across 70 locations with various levels of ID. They offer residential, day, and ambulant care. Direct care workers are responsible for reporting incidents, after which investigations take place, to find out the reason for the incident, including feedback and potential improvements of the care process. All incident reports are stored in a database.

**Research aim**

The aim of this study is to find out whether a relation exists between absenteeism of direct care workers and incident rates at BBG, focusing on the reporting process and data collection. By investigating this relation, conclusions can be drawn on whether absenteeism causes incidents and therefore whether absenteeism prevention can reduce absences and therefore incidents. Patterns will be identified in the data and insights will be gathered from direct care workers, so possible improvements can be found in the incident reporting process. The following research question is researched:

*What is the relation between absenteeism of direct care workers and incident rates in the intellectual disability care at Baalderborg Groep? What can Baalderborg Groep do with the outcome of this relationship to reduce the number of incidents?*

**Method**

A multi-method approach was applied in this study, including retrospective data analysis and prospective survey research. The combination of these methods provided a comprehensive understanding of the reporting process by questioning incident reporting rates, which helped determine dataset completeness. Data analysis took place using data on absenteeism and incidents of BBG, and included data from 2019-2023 and 1069 employees. Poisson, negative binomial and Quasi-Poisson regression models were executed to calculate the relation between absenteeism and incidents, and to calculate the effect size of the possible confounders. A quantitative online survey, including Likert scale and multiple-choice questions, was executed to investigate the number of incidents that direct care workers report and their satisfaction on this process. Additionally, the survey included finding factors that influence the report rates.

**Results**

On a yearly average, direct care workers at residence locations cause 71.6% and day care 28.4% of all the absence days of BBG. Additionally, 88.7% of the client incidents take place at a residence location,

and only 11.3% at daycare. Medication errors, aggression and falls are the most frequent types of incidents, with medication errors relatively occurring more at residence, and aggression more at day care locations. The Quasi-Poisson regression shows that for each additional unit of absenteeism the likelihood of an incident increases by approximately 16.7%. For only the first day of absence this likelihood was 32.0%. However, this relation disappears when considering the confounding factors: location type, location, handicap type, incident type, and whether there was an incident the day before.

The survey included 106 direct care workers, with a response rate of 34.5%. The majority of participants agreed that reporting incidents is important, but only 42.5% report all incidents, and 57.5% of the participants do not report every incident. Ambulant care workers report fewer incidents than residential or daycare workers. Only 54.7% said to either always or often receive feedback, leaving another 45.3% of the direct care workers to receive sometimes, rarely or never feedback. Many participants expressed dissatisfaction with the reporting process. Key factors that cause underreporting are a lack of time, the normalisation of behaviour, and not seeing improvements.

**Discussion**

While literature suggests that staff turnover and unfamiliarity contribute to incidents, the regression model of this research showed only a small relationship between absenteeism and incident rates at BBG, which was slightly bigger when only considering the first day of absence. When including the confounding factors, this relation flattened, suggesting that there is no causal relation. This was contradicting to the hypothesis, where a relation was expected.

The survey results highlight the underreporting of incidents, with 18.8% of the participants reporting fewer than three out of five incidents. This means that the dataset on incidents is not complete, resulting in incomplete data used during the data analysis, affecting the validity of the dataset. This could explain the unexpected outcomes of the data analysis.

Recommended for BBG is to further research factors that influence the occurrence of incidents and improve the care process. With some adaptations this research should be executed again in a few years, so more patterns can be researched. Repetition is important as the incident reporting process should be improved, so the direct care workers report all incidents, and data is therefore more comprehensive. Moreover, the incidents regarding direct care workers reported at BBG are not included in this research, but should be integrated in further research to have all incidents included.

**Conclusion**

Conflicting with the hypothesis, and based on the quantitative study, there is no relation between absenteeism and incidents. There are five confounding factors: location type, location, handicap type, incident type, and whether there was an incident the day before. An explanation is that the survey shows that there is underreporting at BBG, and therefore the dataset is not complete, making it difficult to discover patterns and relations. This outcome suggests that BBG can relocate direct care workers to other locations if needed as this does not lead to more incidents. However, more research must be performed see whether these outcomes are correct. The survey reveals that almost half of the participants are dissatisfied with the reporting process, so there is room for improvements. For example, by making the incident forms shorter, implementing the incident forms into the register system, and providing more feedback after incident reporting.

# Contents

# 1 Introduction

In 2019, around 2.0% of the global population had an intellectual disability (ID), with a higher prevalence in males than in females. Due to the aging population and declining fertility rates, less children are born and consequently diagnosed with ID [1]. Despite the decreasing diagnoses, the demand for care and support by people with ID has grown in the past decades, partly due to the changing society. This means that a good approach is needed to optimise the ID care [2].

**Definition of intellectual disabilities**

ID is defined by significant cognitive deficits, like an IQ below 70, functional skills, and adaptive skills [3,4]. Skills refer to the ability to perform age-appropriate daily activities. Various methods exist for classifying ID. The Diagnostic and Statistical Manual of Mental Disorders 5 (DSM-5) defines disabilities as neurodevelopmental disorders characterised by intellectual, practical, social and conceptual living. In contrast, the Supports Intensity Scale (SIS), focusses on types of support needed and the intensity of that support. The categories of independency are: home living, community living, life-long learning, employment, health and safety, and social activities [3,4].

Another way to define people with ID is by looking at the severity. This research uses the following severity classification [3–5]:

- *Mild:* Most individuals fall into this category, showing slowed down development in all areas of daily living, but they can engage in society with minimal help and are able to learn practical life skills.
- *Moderate:* These individuals require some assistance in their self-care, but can manage basic tasks, travel to familiar places, and learn basic skills related to safety and health.
- *Severe:* These individuals have major delays in development. They are able to understand speech, but have limited communication skills, and need supervision in daily life and in their living situation.
- *Profound:* These individuals often have congenital syndromes. They have limited communication and ability for physical tasks, cannot live independently, require close supervision, and need help with self-care.

**Incidents**

Just like in other healthcare sectors, the aim in ID care is to provide the best healthcare as possible. However, also in ID care mistakes or accidents are unavoidable. In the last few years, in the Netherlands, the number of reports on sexual transgressive behaviour in health care settings was the highest for the ID sector [6]. Furthermore, in 2023, the prevalence of aggressive behaviour with clients was the highest in ID care [7].

An incident is described as *'a health process which unintentional and unexpected did not go as planned and where the client or employee is physically or mentally harmed, could have been harmed or may still be harmed'* [8]. There are different types of incidents that occur in ID care, including aggression, choking, or sexual abuse. Incidents have consequences for clients, fellow clients, and the direct care workers, those who provide care for the client. For example, if a client shows aggressive behaviour, multiple direct care workers may be needed to calm this client down, reducing the ability to care for other clients at that same moment. Physical restraint, to calm down a client, can cause physical harm, like bruises. Aggression can cause mental harm on for example direct care workers, potentially causing them to walk away from the situation, avoid working with that client, or to call in absent [9,10].

When an incident or near-incident threatens the safety of direct care workers or the client, the care organisation must report this to enhance safeguarding and for their quality system policy [11]. Reporting incidents is a way of reflecting on the provided care and for addressing acute risks. For instance, changes in healthcare, such as routine changes, influence people with ID. By reflecting on these changes and looking whether this influences the occurrence of incidents, the healthcare process can be evaluated and optimised [11]. A possible cause of these discontinuities is direct care worker turnover. ID care can be mentally and physically tough, leading to absenteeism, restraining the available ID workforce [12]. Previous studies concluded that unexpected changes of the direct care worker can cause unfamiliarity and frustration in clients with ID and can therefore cause incidents [11,13,14]. If staff turnover leads to incidents, avoiding staff absenteeism could improve health care processes, for example with a stress-free workplace [14]. A knowledge gap exists in whether turnover of direct workers really cause incidents in people with ID or if that is just an impression.

**Study aim**

For this study, a case is used from Baalderborg Groep (BBG), an organisation that provides care for different ID types in different locations. At BBG, incidents also occur, and they focused in the past years on employee absenteeism, which made this organisation a useful case to research. The aim of this study is to find out whether a relation exists between absenteeism of direct care workers and incident rates at BBG. As continuity in care is important for individuals with ID, it is interesting to see if this actually leads to more incidents. The research question answered in this research is: *What is the relation between absenteeism of direct care workers and incident rates in the intellectual disability care at Baalderborg Groep? What can Baalderborg Groep do with the outcome of this relationship to reduce the number of incidents?* Sub-questions related are RQ1, RQ2, RQ3, and RQ4.

If a relation between absenteeism and incidents exists, BBG should address this and respond to it with interventions in the health care processes. The hypothesis is that a relation exists between absenteeism and incidents. If the outcomes of this research show that absenteeism is a cause of incidents, BBG should focus on minimising absenteeism of direct care workers and should look for options to have a good working climate, to decrease the number of incidents. On the other hand, if there is no significant relationship, this could suggest that in the case of shortage of direct care workers at a specific location, direct care workers of other locations could be temporarily relocated to solve the shortage problem in that moment, and that the number or incidents cannot be decreased by avoiding absenteeism. BBG's practices suggest a belief that incidents occur more frequently during staff absences, which forms the basis of this research. According to BBG, incidents could also lead to mental strain on direct care workers, potentially increasing absenteeism, so that the causal relation is reversed. However, this study focuses solely on the causal relation of absenteeism influencing incidents.

A secondary research goal is to investigate to what extent direct care workers report incidents, related to RQ5. This suggests whether the data on incidents, used to answer the first research goal, is complete or not. The willingness of the direct care workers, their satisfaction on the reporting process, and factors influencing whether they report all incidents are researched. This evaluation could show possibilities for optimising the incident reporting process.

The following sub-questions are answered:

1. *Is data from BBG on absenteeism and incidents available?*
2. *Does the direct care worker absenteeism rate and the incident rate differ in different ID locations?*
3. *Which confounding factors influence the (possible) relation between absenteeism and incidents?*

4. *What are the consequences of this (possible) relation between absenteeism and incidents on the performance of Baalderborg Groep?*
5. *To what extent do direct care workers report incidents?*
   - *5.1. To what extent are direct care workers satisfied with the incident reporting process?*
   - *5.2. What factors influence the incident report rates?*

# 2 Theoretical background

This chapter describes several findings from the literature. Section 2.1 explains the several types of incidents. Section 2.2 presents the willingness of personal health assistants to report on incidents. Section 2.3 presents literature on absenteeism in healthcare including the influence of absenteeism of direct care workers on incidents. These findings function as background for the research question and sub-questions and to see whether there are knowledge gaps in literature.

## 2.1 Types of incidents

People with ID have higher chances to suffer from victimisation, with almost all participants experiencing at least one type of victimisation, according to Codina et al. [15,16]. The most reported victimisation event was verbal aggression, followed by intimidation and bias attack, with women experiencing this more than men. About 59.2% reported caregiver victimisation, mainly physical abuse, but also verbal and relational aggression. Sexual victimisation, like fondling, forced kissing and/or rape was reported by 35.0%, and 67.3% experienced witnessing or indirect victimisation, and nearly 23.5% faced electronic victimisation. A total of 38.8% of the victims suffered from poly-victimisation, the occurrence of multiple events. Individuals in a residential care setting had the greatest risk for caregiver victimisation [15,16].

As mentioned in *Chapter 1*, multiple types of incidents occur in the ID care. To get a better understanding of these types, this section elaborates on literature findings of seven different types of incidents, including sexual abuse, aggression, choking, medication errors, fall incidents, running away/disappearing, and suicide attempts.

**Sexual abuse**

In residential settings, two-thirds of the reported incident cases concerned abuse between clients, according to Amelink et al. [17]. They found that, as the severity of ID increases, the percentage of sexual abuse decreases. The most likely victims were females between 18 and 29 years old [17]. However, Tomsa et al. indicated that the prevalence of sexual abuse in institutions was higher for men. They reported that most sexual abuses were committed by fellow clients [18].

**Aggression**

Aggression among clients is a frequent cause of incidents. Tsiouris et al. found that 82.8% of the individuals with ID exhibited some form of aggression [19]. Girasek et al. described different types of aggression [20]. Verbal aggression was the most common form [19,20], followed by physical aggression against others, self-harm with verbal aggression, physical aggression against objects, and lastly self-harm with physical aggression [19]. Men were more likely to show aggressive behaviour. Physical aggression tended to be associated with more severe disabilities [20].

**Choking**

Choking is a common incident for people with ID, often due to swallowing difficulties. Choking is caused by food or non-food ingestion or inhalation that causes obstruction of the respiratory tract, which leads to insufficient oxygen and even death [21,22]. Manduchi et al. showed that 17.3% of older adults (age 48-95) with ID experienced choking, though most cases occurred less than once a month and did not require intervention [21]. Choking on foreign bodies was the most common cause (45.0%), and people with severe or profound disabilities were at higher risk, according to Axmon et al. [22].

Additionally, individuals with ID were twice as likely to experience poisoning from drugs or substances [22].

**Medication errors**

People with ID often have complex conditions and require multiple medications, causing medication errors. Måløy et al. showed that unsafe medication handling practises occurred regularly, like giving medications late, not giving them at all or giving incorrect medicines [23]. Van den Bemt et al. showed that one quarter of the sample experienced a medication error [24]. Prescription errors occurred in people with ID, with a higher prevalence in people with a mild type than a moderate and severe disability type. Zaal et al. concluded that almost half of the population experienced a prescription error of which half were relevant errors [25].

**Fall incidents**

Fall incidents regularly occur among (older) people with ID resulting in loss of confidence, injury or even death. Axmon et al. showed that people with ID had an increased risk of falls, mostly at their residence and during a vital activity. The risk of a serious injury was higher for people with ID [26]. Ho et al. concluded that 39.0% of people with ID fell one or more times, with a wide variation of the fall rate between individuals. In general, the risk of falling increases with age, but for people with ID this starts at a younger age [27].

**Running away/disappearing**

Robinson et al. concluded that young people with ID responded to feeling unsafe by either taking action or avoiding the situation, which caused dangerous consequences like running away [28]. Reid et al. found that running away was the most reported endangering behaviour of girls with an (mild) ID, especially when being a victim of sex trafficking. Running away of these girls was often triggered to chatting on the internet and disappearing with men they met online [29].

**Suicide (attempts)**

Raymond et al. analysed the lacking attention for, and often unrecognised, suicidality in individuals with ID. They are at higher risk of depression or other psychiatric illnesses [30]. Suicide is underreported and suicidal events were more common in those with mild ID, than more severe ID, due to the person's better understanding of death [30].

## 2.2 Willingness to report incidents

Direct care workers must report incidents, as this shows factors for improvement and quality of care can be monitored. However, Archer et al. showed that only 13.3% of the doctors in hospitals witnessing more than five incidents also completed more than 5 incident report forms [31]. Oweidat et al. showed that 24.8% of the respondents always reported incidents in a cancer centre [32]. Several factors exist that influence whether healthcare workers report incidents or not in different healthcare sectors, including hospitals according to Archer et al., Oweidat et al., and Pfeiffer et al., and a cancer centre according to Cooke et al. [31–34]. Cooke et al. showed that 16.8% of the respondents felt not comfortable evaluating their experience with incident learning in the organisation, which could have led to underreporting [33]. The factors of influence on the reporting rates were distinguished in personal and organisational factors. Organisational factors included a lack of organisational support, feeling that no action would be taken or patient safety will not improve, a lack of feedback, and a poor safety culture. Individual factors included not enough time, concerns about reputation, avoiding work interruption, fear

of blame, and forgetting to make a report [31–34]. These factors suggest that organisational, but also personal encouragement is important in the incident reporting process.

Donovan et al. described that direct care workers in ID care often did not report incidents regarding workplace violence [35]. Exposure to violence during work occurs often in (ID) care and health care workers feel like it is 'part of the job' [35]. Reasons for not reporting included that behaviour is 'normal' or 'expected'. Other factors were a lack of support, a waste of time, no time, and incidents were seen as too minor [35]. Willot et al. discussed that lots of research points out that there was a discrepancy between prevalence of incidents with people with ID and reporting rates. Especially for sexual abuse the report rates were low [36].

## 2.3 Influence of absenteeism rates of direct care workers on incidents

According to the Dutch association for disabled people, the percentage of absenteeism, the practice of regularly staying away from work, of direct care workers in disability care instances in the Netherlands was 8.1% in 2023. This percentage had slightly decreased (-0.6%) compared to 2022. *Figure 1* shows the trend of absenteeism in the Netherlands, where absenteeism is higher during the winter season [37].

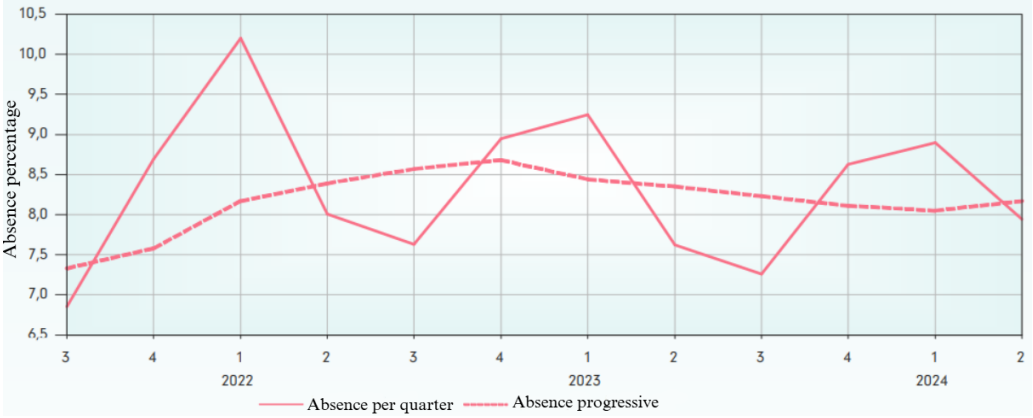



*Figure 1: Trend of absence percentage in the ID care in the Netherlands (t: 2021-2024, d: Vernet [37])*

The importance of direct care workers is great as they help improve the quality of life of people with ID, including emotional and physical well-being, interpersonal relations, development, and social inclusion [14]. McCausland et al. concluded that unfamiliar staff resulted in lower chances of achieving person-centred goals or community participation and higher chances of triggering and challenging behaviours [13]. Direct care worker turnover caused unfamiliarity among clients, which led to lower quality of life. Friedman et al. described that the direct care worker turnover rates ranged from 30.0 to 70.0% annually [14]. The majority of people with ID experienced turnover of their direct care worker and this resulted in more hospital visits, abuse and neglect, and more injuries than people who did not experience turnover [14]. Schuengel et al. found that changes in daily routines, tasks, social interactions, and also unexplained absence, led to frustration and therefore incidents. They reported a mean of 1050 incident reports weekly, of which 43 (4.1%) incident reports regarded unexplained absences [11]. These findings suggest that continuity of direct care workers may result in fewer incidents, such as injuries and emergency room visits [11,13,14].

Direct care workers face various reasons for absence. Ryan et al. linked work-related stress of direct care workers in ID services to exposure to challenging behaviour and increased stress, burnout, and anxiety among staff. This contributed to emotional exhaustion and negative responses leading to lower job satisfaction [12]. Factors like self-efficacy, staff attributions, and support mediated these effects. For example, positive reactions to aggressive behaviour reduced exhaustion. Working in secure settings led

to more stress than community-based roles [12]. Jennifer et al. and Jahoda et al. concluded that aggressive behaviour of clients impact the experience and mental health of the direct care workers, sometimes even avoiding the client after an incident [9,10].

## 2.4 Conclusions

There are many different types of incidents that occur in ID care settings, but research is limited. However, these incidents also occur at BBG and the literature helps understanding what the differences are between those incidents, as they are included in this research. The reason for highlighting these incident types is that limited research is found on the other types of incidents which occur in BBG, which will be explained in *Chapter 3*.

The literature is clear what the benefits are or could be of incident reporting in different healthcare settings. When specifically looking into the reporting process of people with ID in residential care, it can be concluded from literature that not all incidents are reported, especially workplace violence and sexual abuse. One of the reasons for underreporting is that client behaviour becomes 'normal'. Although these findings, there were limited articles on this topic, suggesting that more research should be done.

Literature in different healthcare sectors can be applied and used in this research to gain knowledge in the ID care. There is some evidence that direct care workers turnover and discontinuity influence the incident rates. These studies suggested that changes in direct care workers and routine upset an individual with ID which led to incidents. It would be interesting to research if there is a relation between absenteeism and incident prevalence.

These literature findings show gaps and lacking evidence. Therefore, it is relevant to research these topics and deepen the knowledge. In *Chapter 3*, the context of this research is elaborated from a case perspective, including a description of the research problem from a organisational point of view.

# 3 Context analysis

Incidents that occur in literature are familiar for ID organisations like Baalderborg Groep. This chapter describes the context of BBG to get a better insight into the background information to understand this research. This includes a description of the organisation, their structure, how they handle incidents, and the problem definition from an organisational perspective.

## 3.1 Organisational description

Baalderborg Groep (BBG) is an organisation that, among others, delivers long-term care for different types of ID in Overijssel, the Netherlands. BBG consists of around 70 locations of which over 80.0% are for ID care [5]. In 2023, BBG provided care for 1215 clients [38]. The organisation offers long-term care in a range from personal care support and day care to temporary or permanent residence, for different types of ID. The different ID's are classified as explained in *Chapter 1*, but sometimes there are multiple types at one location [5].

## 3.2 Organisational structure

**Hierarchical structure**

In 2023, BBG employed 1049 people in different layers in the organisation. The largest group of employees are the direct care workers [38]. There are four care units: one for 'child and family', two for 'adult care', and one for 'elderly care' [38]. This research focuses on the direct care workers located at the two centres regarding adult care. This research specifically focuses on residential care, day care, and in Part 2 also on ambulant care. In residential care, clients live completely at a location with full-time care. Day care is only available for activities or care during the day. Ambulant means that a direct care worker goes to the home of the client. Clients then often live at home independently or with their parents [5].

**Information systems**

BBG uses a registration system called 'Ons' for client registration. This system administrates daily observations and specifics of clients. Work schedules and planning can be created in 'Ons'. 'Ons' contains a function for medication control, which is an automated double check for high risk medication, to limit medication errors [39].

Baalderborg Groep uses Zenya as software to store all documents. In Zenya different programs can be assessed, like i-Task, which is used for reporting incidents. In this program a report can be filled in and that report will automatically be brought to the attention of the appropriate officials. I-task facilitates the possibility of making an automatic analysis of the entered reports. These software programs are of importance for this research as incidents are reported via this system and therefore data is collected from there.

## 3.3 Incidents

As an ID care organisation, BBG also faces incidents with clients. A list of the types of incidents occurring at BBG are shown in *Table 1*.

| *Incident types* | |
|---|---|
| - ***Fall incidents*** | - ***Incorrect application of freedom restricting tools and measures*** |
| - ***Medication errors*** | - ***Sexual transgressive behaviour*** |
| - ***Aggression of (fellow) clients*** | - ***Ingestion of dangerous substances*** |
| - ***Running away/disappearing*** | - ***Traffic accidents*** |
| - ***Combustion*** | - ***Suicide (attempts)*** |
| - ***(Near) drowning*** | - ***Household accidents*** |
| - ***Incorrect application of aids*** | |

*Table 1: Incident types occurring at Baalderborg Groep.*

Recognising incidents is crucial due to their impact on clients, direct care workers, and/or other clients. Incidents are unavoidable due to the unpredictability of behaviour, but recurrence of the same incidents can sometimes be prevented through interventions in healthcare processes. When an incident occurs, direct care workers or other involved staff must directly report the incident, as obligated by the Health and Youth Care Inspectorate and the guidelines of BBG [40]. The reporting process involves filling in one out of two forms, one is for incidents affecting clients and the other for incidents affecting employees. This research only focuses on the incidents affecting clients. The i-Task coordinator, which can be the team leader, head of the department or manager deals with the incident report and communicates any feedback to relevant parties like the behaviour scientists. Incidents should be investigated to look for improvements in the care process, aiming to prevent recurrence of incidents. According to the policy of BBG all registered incidents are periodically analysed, discussed and provided with improvement actions. These actions are implemented on different levels, at client level in the support plan discussion, at team level in team discussions and at organisation level in a management review.

## 3.4 Problem definition

BBG focuses on several areas to improve organisational quality and efficiency. BBG seeks to provide personalised care, including personal control, by mutual agreements between client and direct care workers while minimising risks and uncertainties. Like many other healthcare organisations, BBG is exploring technologies to support healthcare delivery and organisation to improve efficient and effective use of staff capacity [5]. In 2023, the focus of operational risks included staff shortages and high absenteeism. The latter is used in this research to see if it can predict, and therefore might prevent, incidents [38].

In the incident reporting process, three different perspectives can be considered. The first perspective in this research examines whether direct care workers are willing to report incidents and their satisfaction with the reporting process. This is relevant because different perceptions exist on whether direct care workers are reporting too many or too few incidents. Also, different definitions of incidents exist between direct care workers of different locations leading to inconsistencies.

After a reported incident, behaviour scientists or team leaders, dependent on the location, should provide feedback to the location including possible improvements in the caring process. So, the second research perspective focuses on the behaviour scientists and whether, and in which way, they provide feedback.

BBG collects incident reports in databases. The third research perspective on incidents and reporting incidents consist therefore of the stored data. It is interesting to see the quality of the data, what data is stored, what the incident committee does with it, and if patterns can be discovered.

## 3.5 Conclusions

BBG provides long-term healthcare for all different types of ID. Different types of incidents occur in disability care, which have consequences for the client, the direct care workers, and fellow clients. Incidents at BBG should be reported through filling in a report form in i-Task. Reported incidents are discussed and feedback including improvement actions is provided to prevent recurrence.

Two out of three perspectives covering the process of incident reporting are studied in this research. Part 1 consists of the data collected from incident reports, including an investigation of patterns. In this part, there will be an extra focus on the influence of absenteeism on the prevalence of incidents. This is researched as employees of BBG predict that there is a relationship between those factors. Part 2 of this research focuses on the process of reporting incidents by direct care workers. This includes an investigation on the willingness of reporting and the satisfaction levels of the incident reporting process. This shows how comprehensive the data used for Part 1 is and gives information on how this reporting process could be improved.

# 4 Methods

This chapter describes the methods used in this research. *Section 4.1* describes the reasons for choosing these two methods. *Section 4.2* includes Part 1 of this research, the data analysis. *Section 4.3* describes Part 2 of this research, including the quantitative survey.

## 4.1 Action plan

This research followed a multi-method approach. Part 1 used a quantitative analysis of absenteeism rates and incidence reports of BBG locations to determine whether a relation exists, related to RQ1, RQ2, RQ3, and RQ4. This investigated the third part of the incident reporting process, the data collection. A suitable method therefore is a quantitative data analysis to look for patterns and relations, as explained in *Section 4.2*. Part 2 consisted of a quantitative survey on the report rates and satisfaction of the incident reporting process, according to direct care workers of BBG, related to RQ5. This part estimated whether the collected incident dataset was complete. For this part the opinions of possible direct care workers on their willingness to report incidents were collected and analysed, for which a survey is the most suitable method, as explained in *Section 4.3*. The combination of these two methods provided a more comprehensive understanding of the reporting process and patterns in the data. The survey assessed the incident reporting rates of direct care workers, offering insight into whether all incidents are consistently reported. This helped determine the completeness of the incident data used in the data analysis, which in turn influenced the reliability of the findings and the conclusions drawn from the study.

## 4.2 Part 1: Data research – Absenteeism and incident reports

### 4.2.1 Study design

This part consisted of a retrospective desk research to examine the impact of direct care workers' absenteeism on incident rates at BBG. Retrospective research uses previously collected data, saving time and resources. BBG already tracked absenteeism and incidents, making this approach appropriate [41,42]. This phase addressed the research question: *What is the influence of absenteeism or staff shortages on the number of incidents in the intellectual disability care at Baalderborg Groep?* And *what can Baalderborg Groep do with the outcome of this relationship to reduce the number of incidents?* Sub-questions included: *Is data from BBG on absenteeism and incidents available? Does the direct care worker absenteeism rate and the incident rate differ in different ID locations? To what extent do confounders influence the (possible) relation between absenteeism and incidents?* And *what are the consequences of this (possible) relation between absenteeism and incidents on the performance of Baalderborg Groep?*

### 4.2.2 Data collection

Two datasets were collected and analysed: (1) absenteeism records of BBG employees and (2) incident reports completed by direct care workers. Dataset 1 included start/end dates at BBG and location of employment per employee. Raw data from January 2018 to October 2024 was collected from BBG, as absenteeism records are tracked since 2018. However, absenteeism data from 2018 was incomplete due to the new working method and the data, and 2024 was not completed yet. This resulted in usable data ranging from 2019 till 2023, as the yearly averages were used for the calculations. Inclusion criteria covered incident reports and absenteeism data from residential care or daycare locations. An exclusion criterion was elderly care, as these clients did not have intellectual disabilities.

### 4.2.3 Data analysis

The data analysis was executed in R studio Version 4.4.2 and included several steps [43,44]:

1. **Data preparation**

The first step was to import the data into R. The following data was gathered per dataset for the analysis:

For absenteeism records:

- Direct care worker number
- Location
- Date(s) of absence
- Duration of absence
- Start (and end) date of working at BBG

For incidents reports:

- Date of incident
- Location
- Client number
- Type of incident

Employees that did not work during this period or where the location of employment was missing and reports with missing data were deleted. A list of the included locations is shown in *Appendix A*.

2. **Deleting duplicates**

The dataset on absenteeism contained duplicates, which were deleted. Some of the data contained duplicate values where multiple reports had been made about one direct care worker, but the absence days were contiguous. This could have been reported once, but sometimes the attendance rates changed between these separate reports. However, it was unknown when these employees had been present within their absence time. So, the decision was made to make one absence report out of these consecutive reports. As a result, the attendance percentage was therefore not included in this study.

3. **Data enhancement**

Two columns were added to both datasets: (1) the type of care a location provides, so residential care or daycare, and (2) the type of handicap. For the absenteeism dataset the length of absence was calculated, and a classification of the duration was made based on previous research of BBG: Short (1-7 days), medium (8-42 days), long (43-365 days) and very long (>365 days). For the analysis an extra distinguishment was made between short (short and medium) and long absences (long and very long).

4. **Merging data**

The datasets were integrated to resolve discrepancies, for example by renaming locations. A first new created dataset showed the number of incidents and absenteeism per date and location. If a person was absent for multiple days, then for every day this direct care worker was registered as absent. A second created dataset included the same information, but only the first day of absence was registered. These datasets enabled comparison of the impact of the first day of absence or a longer absenteeism period.

5. **Statistical analysis**

The new datasets were statistically analysed. First, some general calculations were done, like the number of absenteeism reports per location, the number of incidents per location, and which type of incident

occurred the most. These calculations investigated the differences between residence and daycare locations. The datasets contained count data of absences and incidents. For this count data, several regression models were applied to analyse the relation between absenteeism and incidents: (1) the Poisson regression model, (2) negative binomial regression model, and (3) the Quasi-Poisson regression model [45,46]. Frequently used regression models, like linear regression and logistic regression did not fit on the data, because count data is not normally distributed and cannot have negative values [42,46].

The Poisson regression is useful for describing the number of rare events during a specific period or in a specific area [45–47]. In this research, the events were the number of absences and incidents during 2019-2023 at specific locations of BBG. The count of the number of incidents was dependent on the independent amount of absenteeism. During the analysis a dispersion test was conducted. A dispersion of one shows that the Poisson model fits on the data [45,46]. Measures of dispersion tell us how much fluctuation around the central value we should expect and whether the data samples are (in)correctly assumed to have a uniform spread. When overdispersion (>1) occurs, a negative binomial regression model fits better on the data. With underdispersion (<1) the Quasi-Poisson regression model is the best option. The negative binomial model allows mean and variance of samples to be different [45,46]. Events can be negatively correlated, which means that more events on one day give a higher chance of less events tomorrow. This causes a larger variance in the data than Poisson, where occurrences are independent [45,46]. The Quasi-Poisson model does not assume that the variance is restricted to one, but gets its variance from the data. This strategy leads to the same coefficient estimates as the standard Poisson model, but inference is adjusted for underdispersion [45].

First, the relation between absenteeism and incidents was calculated with the regression models, without considering possible confounders [45,46]. The estimates that resulted from these calculations were used to measure the effect size. The effect size shows whether these factors influence the relation between absenteeism and incidents [42]. An effect size greater than 10.0% means there is confounding. One by one the factors were added to the regression models to calculate the effect sizes, which followed the formula [42]:

$$\textit{Effect size (\%)} = ((\beta 1 - \beta 2) / \beta 1) * 100$$

Where
$\beta 1$: estimate without confounders
$\beta 2$: estimate with possible confounder

The next variables were tested for confounding:

- Location type (Residence, and day care)
- Locations of BBG
- Handicap type (Mild, moderate, severe, profound, and intensive treatment)
- Incident type
- Classification duration absence (short, and long)
- Incident on the day before

The model without confounders and a model with all the confounders are displayed in bar and line graphs in *Chapter 5*.

### 4.2.4 Ethical considerations

This research did not contain direct contact with clients or direct care workers and retrospective data was used. The datasets consisted of client numbers, but in the end these were not used, and deleted from the dataset. To enhance confidentiality the researcher did not have access to the client database, which

ensured that the incidents and client numbers could not be traced back to a specific person. In the report the client numbers were not used, so also then clients could not be traced back. Ethical approval has been obtained retrospectively from the University of Twente's BMS Domain Natural Sciences & Engineering Sciences (NES) (registration number: 250199).

## 4.3 Part 2: Survey - Incident reporting by direct care workers

### 4.3.1 Study design

In Part 2, a cross-sectional online survey was conducted in November 2024 and December 2024. Following the CROSS (Consensus-Based Checklist for Reporting of Survey Studies) checklist, this method collected data at a single period in time to evaluate the incident reporting process at that moment [48]. A cross-sectional survey is the most suitable method, due to its quickly providing insights into people's attitudes [49,50]. Surveys are commonly used to test satisfaction among employees, which can help with planning health interventions [31–34,51]. An online format was selected due to the scattered locations of BBG across the region and the benefits of user-friendliness and anonymity of respondents, making them more willing to share information [52]. The aim of the survey, and the secondary goal of this research, was to answer the following questions. *To what extent do direct care workers report incidents? To what extent are direct care workers satisfied with the incident reporting process?* And *what factors influence the incident report rates?*

**Target population**

All 307 direct care workers from BBG in ID care, got an invitation to participate, as they are responsible for incident reporting. Exclusion criteria were employees in youth and elderly care, consistent with the datasets in Part 1. At least 30 direct care workers had to fill the survey to get a normal distribution [53], but the goal was a response rate of 20.0-30.0%. These are average response rates for online surveys and provide a representative sample [52].

**Survey distribution**

The target population was approached via several channels. On November 1, the unit directors received an email with information and the survey link, with a reminder sent on December 2. They were asked to share the information and link with the direct care workers at their locations. Announcements were made on November 4 via BBG's internal SharePoint and the newsletter, so as many direct care workers as possible were approached. The target population was representative for the ID care at BBG, as they provided care for all different types and all locations were invited to participate. The representativity of the sample size further depended on whether individuals of every different location did fill in the survey.

### 4.3.2 Survey

The survey was designed using insights from literature on similar studies, like described in *Section 2.2*. This literature contained questionnaires which were used as a base for the survey in this research and to make sure all relevant parts were included [31–34]. The survey is added in *Appendix B.* The questionnaire, respectively questions 3, 4, 6 and 7, and 8, of Archer et al. was used as base for questions 7, 9, 11 (*a, c, d, e, g, h, i, j, l, m, o, r, and s*), and 12 [31]. The questionnaire of Oweidat et al. was used for question 11 (*a, b, e, f, g, j, k, l, m, o, and p*) [32]. The questionnaire of Cooke et al. was used for question 9, 10, and 11 (*b, i, j, k, and o*) [33]. The questionnaire of Pfeiffer et al. was used for question 5, 6, 7, 9, 11 (*f, i, j, l, and m*), and 12 [34]. Question 8 was added, and for question 11 the extra options *n* and *q* were added, on the advice and input of professionals from BBG, including a quality advisor and

ICT advisor. Option *n* regarded information on specific the forms that are filled in in the ID care at BBG. Option *q* is added, as repetitive behaviour that can cause incidents is common in people with ID.

The survey was conducted via Google Forms and took no more than five minutes to complete, which minimised the burden and response fatigue. It contained 12 questions divided into two parts. Part 1 consisted of 3 open and 1 multiple choice question regarding general information, like work experience and location where they work. Three questions were open, because people can work at multiple locations, and to make sure that they could fill in all possible options and no locations were missed by the researcher. The one multiple choice question regarded the different types of ID that exist and are taken care of at BBG, which were known to the researcher. Part 2 focused on whether individuals actually reported incidents and their satisfaction levels with the incident process. This part consisted of 6 ordinal questions based on a five-point Likert scale, 1 checkbox question, and 1 multiple choice question. A Likert scale made the answers quantifiable and was used to find out individual's attitudes regarding a specific circumstance or belief [54,55]. To identify factors affecting the reporting process, a checkbox question was included with multiple answer options based on literature and conversations [31–34]. Participant could select multiple reasons and add additional factors if they felt any were missing, but they could also leave that open.

### 4.3.3 Data analysis

The data analysis was executed in Excel and R Studio Version 4.4.2 [43]. Responses were converted into a dataset in Excel and categorised into the different types of care locations, including residence, daycare, and ambulant. Responses on open questions were standardised, like aligning location names.

For the statistical analysis, descriptive statistics (frequency, percentages, and mean) were calculated. Comparisons were made between the different participant groups: working at different location types (residence, daycare and ambulant care), differences in years of experience (general in ID care and at the current location), and working at different locations. Variations were analysed on several questions, like the reporting rates and whether feedback was received. To ensure comparability between the location types, the number of responses per question were normalised, by dividing the count of each response by the total responses within the respective location type. A Chi squared test was used to calculate the significance between the responses of the participants from several different participant groups, like the location type. Chi squared can be used with ordinal categories, like a Likert scale [42,54]. A p-value of 5.0% demonstrates statistical significance [42].

### 4.3.4 Ethical considerations

The survey included an introduction with information and approval of informed consent. Respondents were asked if they had read the information and agreed to participate by completing the survey and thereby granting permission for their responses to be used in the study. To ensure that respondents reported issues and feelings without fear of retribution, the questionnaire was self-administered and anonymous. Participants were asked about their work experience and location where they work, but no personal details were required. Due to small sample sizes per location, the information on experience could lead back to the specific employee. However, to enhance confidentiality the locations were put together during analysis. The burden for participating in the survey was minimal, with a short completion time and no questions were asked which could have harmed the respondent. Ethical approval has been obtained retrospectively from the University of Twente's BMS Domain Natural Sciences & Engineering Sciences (NES) (registration number: 250199).

# 5 Results

This chapter presents the results of this research. *Section 5.1* describes the characteristics of the datasets, the results from the absenteeism and incident dataset, and shows the regression model outcomes. *Section 5.2* describes the outcomes of the survey for direct care workers, including the characteristics of the participants, the outcomes of the questions, and factors that influence the reporting process.

## 5.1 Part 1: Data research – Absenteeism and incident reports

### 5.1.1 Characteristics of the datasets

The created dataset consisted of data from the absenteeism reports and the incident reports from BBG. *Table 2* shows general information from this dataset. A total of 1069 employees of BBG were included that worked in the years 2019-2023 in ID care. BBG employed more females, with a slightly higher absence rate, than males. The average absence of respectively male and female show absence rates of 1.1% and 1.3% in one year. Overall, the absence rate per year is 1.3% (4.7 days). Residence care has in total more absenteeism (71.6%) and more incidents (88.7%) relative to day care (28.4% and 11.3%).

| *Variables* | *Frequency* | *Percentage (%)* |
|---|---|---|
| *Employees** | | |
| ***Male*** | 131 | 12.0 |
| ***Female*** | 965 | 88.0 |
| *Experience (years)** | | |
| ***Average*** | 10.3 | - |
| ***Min*** | 0.1 | - |
| ***Max*** | 47.5 | - |
| *Locations* | | |
| ***Residence*** | 40 | 66.7 |
| ***Day care*** | 20 | 33.3 |
| *Average number of absence days per year* | | |
| ***Male (per person)*** | 522 (4.0) | 10.0 |
| ***Female (per person)*** | 4667 (4.8) | 90.0 |
| | | |
| ***Residence*** | 3868.4 | 71.6 |
| ***Day care*** | 1533.6 | 28.4 |
| *Average number of absences days per location per year* | | |
| ***Residence*** | 96.7 | - |
| ***Day care*** | 76.7 | - |
| *Average number of incidents per year* | | |
| ***Residence*** | 1183.6 | 88.7 |
| ***Day care*** | 150.8 | 11.3 |
| *Average number of incidents per location per year* | | |
| ***Residence*** | 29.6 | - |
| ***Day care*** | 7.5 | - |

*Table 2: Characteristics dataset*
*(t=2019-2023, d= database BBG)*
**These include all the employees working in disability care*

### 5.1.2 Absenteeism

The average number of absenteeism reports per year varied between locations. On average, on 96.7 days of the year absence occurred at a residence location and on 76.7 days at a day care location. The number of times absence was reported was for residence locations 19.8 and for day care locations 10.7 times, which shows that probably most absence periods are longer than one day. Short lengths of absenteeism were the most common (64.9%), followed by medium (21.6%), long (11.8%), and very long absences

(1.7%). There is a distribution of the occurrence of absenteeism at different locations. *Figure 2* shows the locations where the most absences occurred, with 'Vlasakkerkamp 21' having the highest rate of 56.8 times that an absence period occurred. *Appendix A* displays the absence rates per location.

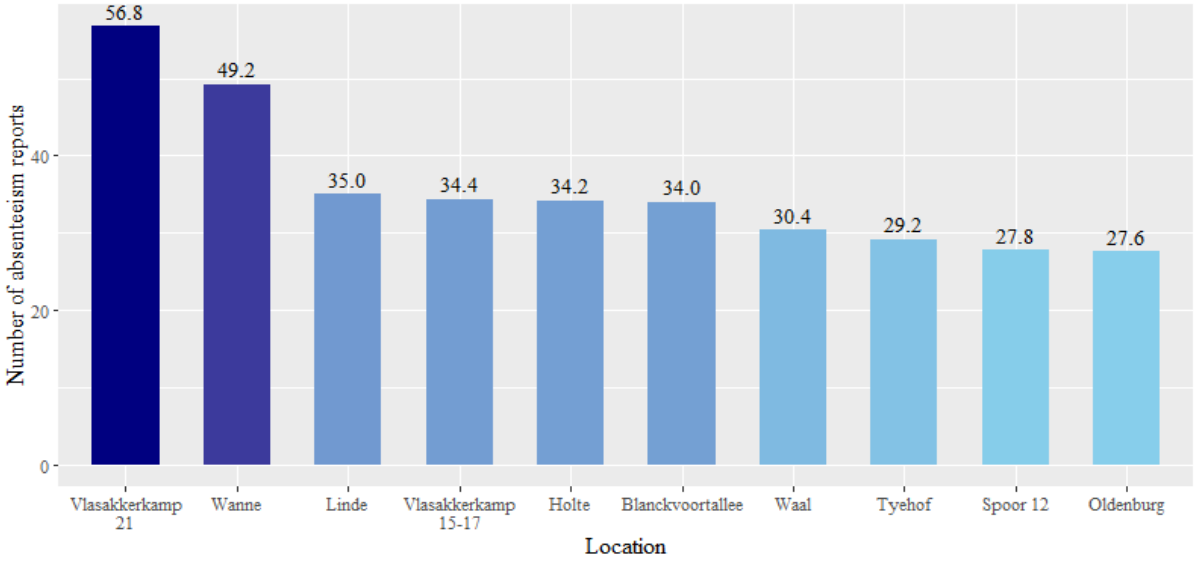



*Figure 2: Top 10 locations with on average the highest frequence of absenteeism (t = 2019-2023, d = database absenteeism reports BBG)*

### 5.1.3 Incidents

In residence locations more incidents occur on average than in day care, respectively 28.9 and 8.4 incidents per year. *Figure 3* shows the locations with the most incidents on average. *Appendix A* displays the incident rates per location. 'Vlasakkerkamp 21' scores second on the incident rates. This location also has the highest rate of having an absence and incident on one day with a rate two times as big as the second location.

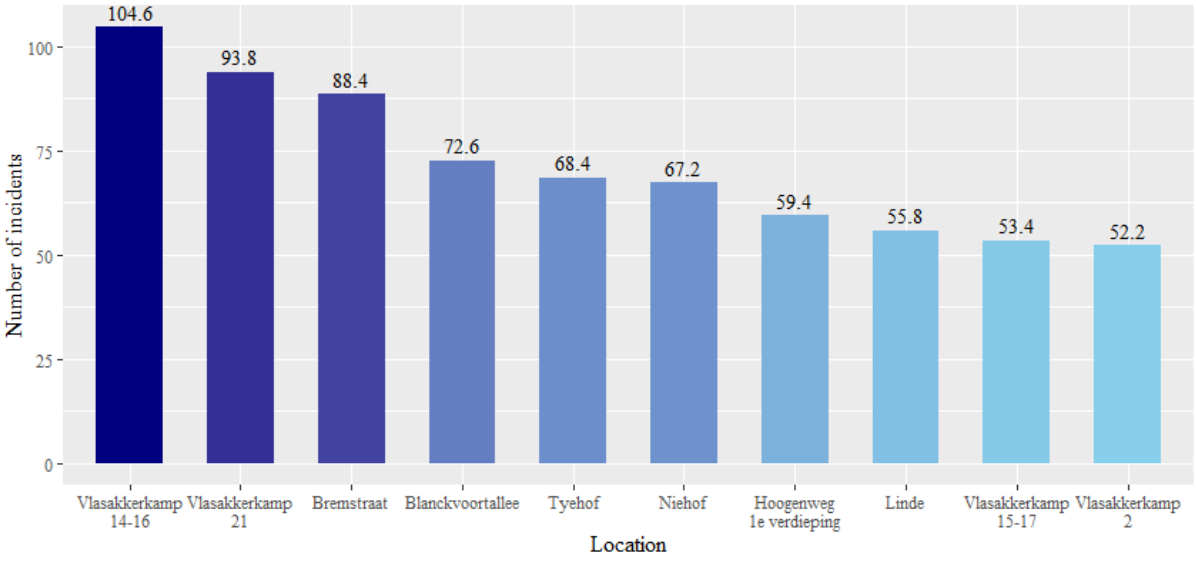



*Figure 3: Top 10 locations with on average the highest number of incidents (t = 2019-2023, d = database incident reports BBG)*

*Figure 4* shows the number of incidents per type of incident. The displayed numbers are the number of incidents that occur on a yearly average at one location. Medication, aggression, and fall incidents are

the most common. Aggression and fall incidents occur, relatively, more often in day care than medication errors. Considering all locations of BBG and the timeframe 2019-2023, 2783 medication errors, 1677 aggression incidents, and 1659 fall incidents occurred. However, other types of incidents occurred rarely. Ingestion of hazardous substances occurred 3, bathing incidents 4, and traffic accidents 15 times within the timeframe.

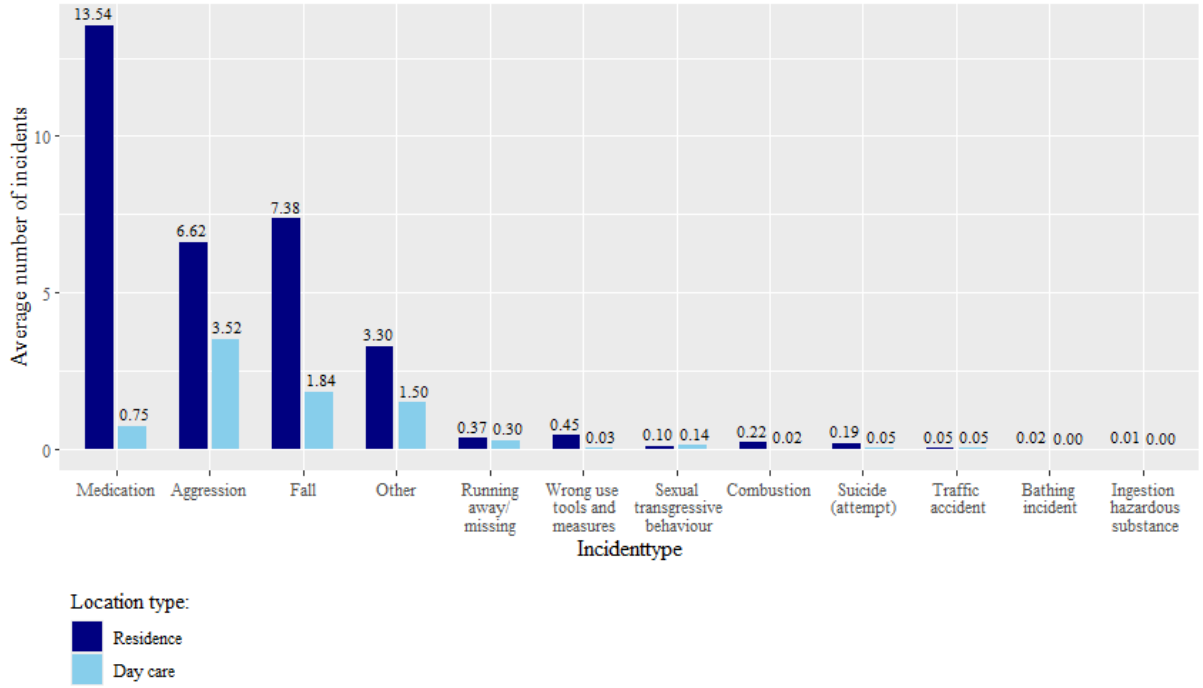


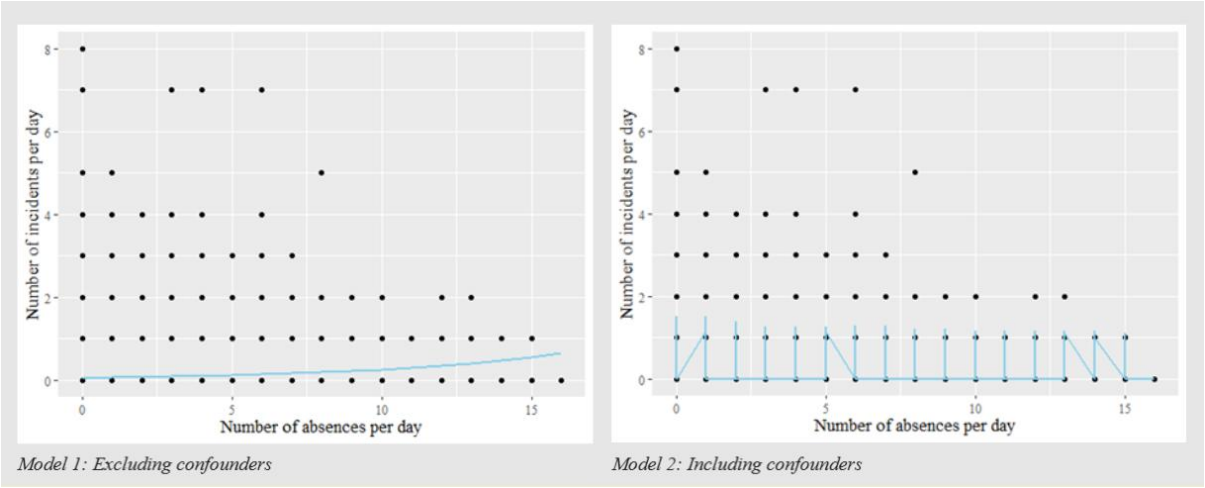

*Figure 4: Average number of incidents per year and location by incident type (t = 2019-2023, d = database incident reports BBG)*

### 5.1.4 Relation absenteeism and incidents

The locations with the highest rates of having both absences and incidents on one day is 'Vlasakkerkamp 21' with 11.8 times per year. Followed by 'Tyehof' with 5.4 times and 'Niehof' with 4.8 times.

For the first dataset, considering all the days someone was absent, a small, significant relation between absenteeism and incidents is found. When no absence exists, a total of 0.056 incidents are expected per day. The Quasi-Poisson model in *Table 3* shows an estimate of 1.167 (exp(0.154)), meaning that for each additional unit of absenteeism, the expected number of incidents is increased by about 16.7%. However, this relation only shows when no other variables are considered, which is shown in *Figure 5*. *Model 2* shows a fluctuation in the relation when the other variables are included. *Table 3* shows the estimates of the different regression models and possible confounders that were added to the regression models. The effect size for all variables, except for long absences, is greater than 10.0%.

For day care applies that the chance of an incident is 6.8% lower than for residential locations. The handicap type that has the biggest chance of having incidents is the combination of mild/severe/profound ID with a 205.0% higher chance than day care. If there is an incident, the day after that incident has a 1.0% higher chance of having another incident than when no incident had occurred. After calculating the dispersion, using the Poisson regression model, the rates of dispersion turned out to be <0.5 for every confounding variable. *Table 3* shows a great resemblance between the values of the Poisson regression and the Quasi-Poisson regression. The negative binomial regression is more deviant.



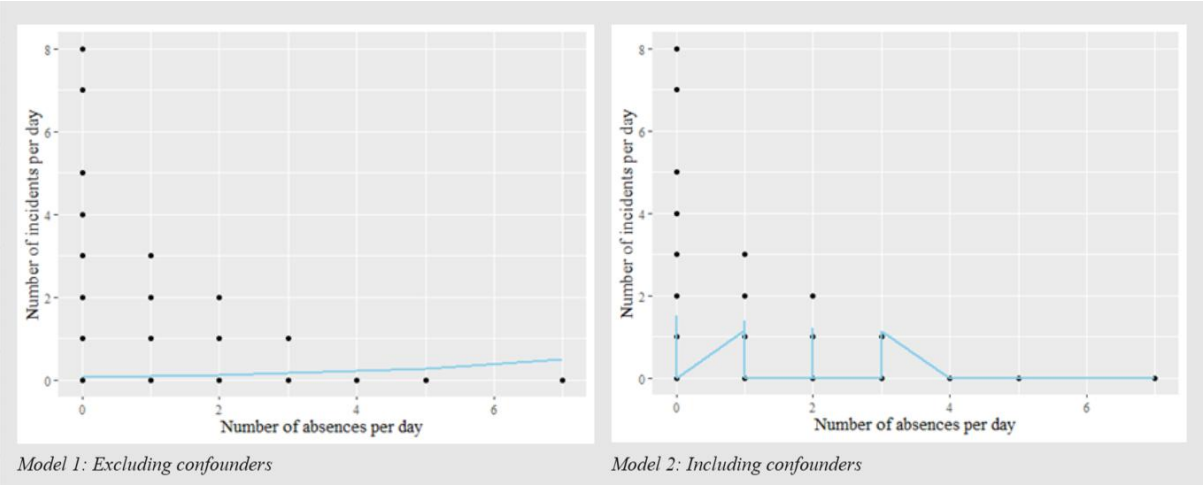

*Model 1: Excluding confounders* *Model 2: Including confounders*

*Figure 5: Quasi-Poisson regression for the relation between absenteeism and incidents - All days of absence included (t = 2019-2023, d = database absenteeism reports and incident reports BBG)*

| ***Possible Confounder*** | ***Poisson regression*** | | | ***Negative binomial regression (Overdispersion)*** | | | ***Quasi-Poisson regression (Underdispersion)*** | | |
|---|---|---|---|---|---|---|---|---|---|
| | ***Estimate*** | ***Effect size (%)*** | ***p-value*** | ***Estimate*** | ***Effect size (%)*** | ***p-value*** | ***Estimate*** | ***Effect size (%)*** | ***p-value*** |
| *No confounders* | 1.544e-01 | - | <2e-16*** | 1.605e-01 | - | <2e-16*** | 1.544e-01 | - | <2e-16*** |
| *Location type* | -7.035e-02 | 145.6 | <2e-16*** | -6.673e-02 | 141.5 | <2e-16*** | -7.034e-02 | 145.6 | <2e-16*** |
| *Location* | 1.045e-02 | 93.2 | 1.612e-01 | 9.646e-03 | 94.0 | 2.176e-01 | 1.045e-02 | 93.2 | 1.811e-01 |
| *Handicap type* | 5.179e-02 | 66.5 | <2e-16*** | 5.029e-02 | 68.7 | 1.55e-14*** | 5.179e-02 | 66.5 | 1.42e-15*** |
| *Long absences* | 1.418e-01 | 8.2 | 5.39e-02 | 1.478e-01 | 7.9 | <2e-16*** | 1.418e-01 | 8.1 | <2e-16*** |
| *Incident type* | 1.741e-04 | 99.9 | 9.72e-01 | -3.979e-02 | 124.8 | 8.84e-01 | 1.741e-04 | 99.9 | 9.71e-01 |
| *Incident day before* | -1.245e-03 | 100.8 | 8.00e-01 | -1.245e-03 | 99.2 | 8.73e-01 | -1.245e-03 | 100.8 | 4.89e-01 |

*Table 3: Regression models - All absence days included (t = 2019-2023, d = database absenteeism reports and incident reports BBG)*
*Note: *p < 0.05; **p < 0.01; ***p < 0.001*

The second dataset only considered the first day of absence. When no absence exists, a total of 0.072 incidents are expected per day. The relation between absenteeism and incidents had an outcome of 1.319 (exp(0.277)) in the Quasi-Poisson regression, meaning that for every extra unit of first day absence, there is a 31.9% higher chance of an incident. *Figure 6* displays this relation, showing that without confounders the influence of absence is increasing. The model with confounders shows that the relation is fluctuating and flat in the end. In this dataset, the variance also appeared to be underdispersed, as all values of dispersion were <0.5. *Table 4* displays the outcomes on the different regression models for this dataset. It shows that the negative binomial regression differs in comparison to the other two models. The estimate is higher in the Poisson and Quasi-Poisson regression for when only the first day of absence was taken into account than when all days of absence were used. The effect sizes of location types, location, and handicap type were greater in the second dataset. The effect size of long versus short absences has become negative.




*Model 1: Excluding confounders* *Model 2: Including confounders*

*Figure 6: Quasi-Poisson regression for the relation between absenteeism and incidents - Only the first absence day included (t = 2019-2023, d = database absenteeism reports and incident reports BBG)*

| ***Possible Confounder*** | ***Poisson regression*** | | | ***Negative binomial regression (Overdispersion)*** | | | ***Quasi-Poisson regression (Underdispersion)*** | | |
|---|---|---|---|---|---|---|---|---|---|
| | ***Estimate*** | ***Effect size (%)*** | ***p-value*** | ***Estimate*** | ***Effect size (%)*** | ***p-value*** | ***Estimate*** | ***Effect size (%)*** | ***p-value*** |
| *No confounders* | 2.773e-01 | - | 3.51e-11*** | 0.161 | - | <2e-16*** | 2.773e-01 | - | 8.08e-10*** |
| *Location type* | -2.298 | 928.8 | <2e-16* | -2.298 | 1531.4 | <2e-16*** | -2.298 | 928.7 | <2e-16*** |
| *Location* | -1.864e-02 | 106.7 | 6.687e-01 | -1.855e-02 | 111.6 | 6.831e-01 | -1.864e-02 | 106.7 | 6.829e-01 |
| *Handicap type* | -2.930e-01 | 205.7 | 8.79e-03** | -2.901e-01 | 280.7 | 1.370e-02* | -2.930e-01 | 205.7 | 1.51e-02* |
| *Long absences* | 3.077e-01 | -11.0 | 2.59e-12*** | 3.124e-01 | -94.6 | 9.9e-11* | 3.077e-01 | -11.0 | 8.5e-11*** |
| *Incident type* | -5.646e-03 | 102.0 | 8.96e-01 | -3.979e-2 | 124.9 | 8.84e-01 | -5.646e-03 | 102.0 | 8.93e-01 |
| *Incident day before* | -8.835e-03 | 103.2 | 8.38e-01 | -8.835e-03 | 105.5 | 8.38e-01 | -8.835e-03 | 103.2 | 5.77e-01 |

*Table 4: Regression models - Only the first absence day included (t = 2019-2023, d = database absenteeism reports and incident reports BBG)*
*Note: *p < 0.05; **p < 0.01; ***p < 0.001*

## 5.2 Part 2: Survey - Incident reporting by direct care workers

### 5.2.1 Characteristics of the participants

A total of 106 direct care workers completed the survey with a response rate of 34.5%. All respondents completed the survey fully, so there are no exclusions for the data analysis. *Table 5* displays the characteristics of the participants. The mean overall work experience is around ten years longer than the mean experience at the location where they worked during this research. In total, 70.8% of the participants work in residence locations, 21.7% in daycare, and 7.6% in ambulant care.

| *Variables* | *Frequency* | *Percentage (%)* |
|---|---|---|
| *Participants* | 106 | |
| *Residence* | 75 | 70.8 |
| *Day care* | 23 | 21.7 |
| *Ambulant care* | 8 | 7.6 |
| *Different locations* | | |
| *Residence* | 26 | |

| | | |
|---|---|---|
| *Day care* | 10 | |
| *Ambulant care* | 3 | |
| *Experience in general* | | |
| *Mean* | 17.2 | - |
| *Min* | 2 | - |
| *Max* | 43 | - |
| *Experience at location* | | |
| *Mean* | 7.0 | - |
| *Min* | 0.5 | - |
| *Max* | 26 | - |
| *Handicap type* *** | 185 | |
| *Mild* | 59 | 31.9 |
| *Mild+* | 5 | 2.7 |
| *Moderate* | 24 | 13.0 |
| *Moderate+* | 5 | 2.7 |
| *Severe* | 10 | 5.4 |
| *Severe+* | 1 | 0.5 |
| *Profound* | 50 | 27.0 |
| *Profound+* | 7 | 3.8 |
| *Intensive treatment* | 24 | 13.0 |

*Table 5: Characteristics of the survey participants*
*(n = 106, t = November - December 2024, d = survey BBG)*
** Participants can provide care for more than one handicap type*
*** A 'plus' means that these individuals need more intense treatments within the same handicap type*

### 5.2.2 Outcomes of the survey

The outcomes of the survey are divided into 4 sections:

1. **Incident reporting rates**

A total of 25 (23.6%) participants agree and 79 (74.5%) strongly agree that reporting incidents is important. The answers show that 47 (44.3%) agree and 33 (31.1%) strongly agree that they report all incidents, 14 (13.2%) are neutral on this statement and 12 (11.3%) disagree, without significant differences between the participants working at different types of locations. The question on the report rates, so how many out of 5 incidents do people report, show significant differences between those groups ($p = 7.076e\text{-}05$***). Of all participants, 20 (18.8%) said that they report three or less incidents per five incidents that occur, 41 (38.7%) participants fill in four out of five incident reports, and 45 (42.5%) people report all incidents. *Figure 7* shows that people working in ambulant care are more likely to not report incidents. In total, 3 (37.5%) of the direct care workers in ambulant care report zero or one incident per five incidents. In daycare 8 (35.0%) and in residential care 9 (12.0%) participants report three or less incidents per five that occur. When dividing the participants in different groups, like locations, experience in general, and experience at location, results show no significant differences.

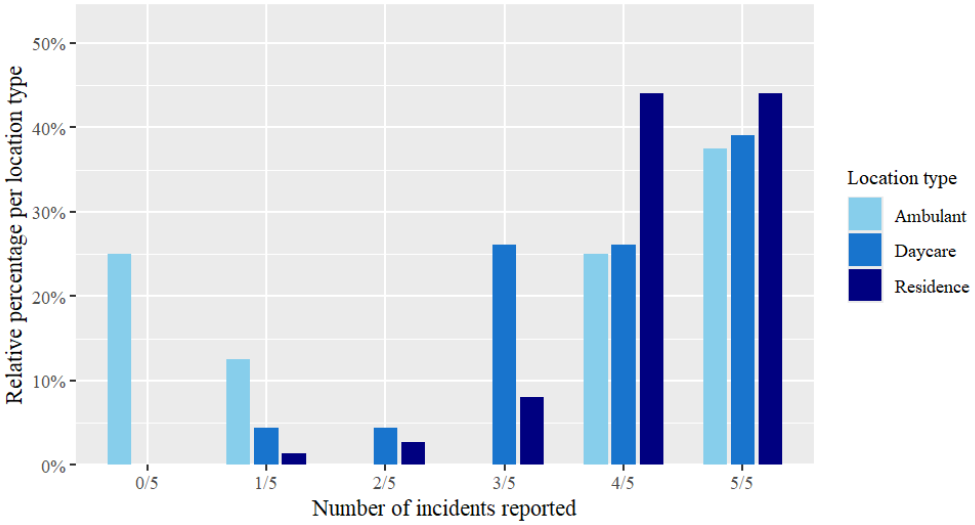



*Figure 7: Percentage of reporting rates. Statement: 'How many times do I report occurred incidents'. (n = 106, t = November - December 2024, d = survey BBG)*

The majority, respectively 59 (55.7%) and 23 (21.7%), of the participants report incidents within a day or directly, as they are supposed to do according to the protocol. The other participants indicated that 21 (19.8%) report within a week, 1 (0.9%) within a month, and 2 (1.8%) never report incidents, which corresponds with the reporting rates. There is a significant difference between the location types regarding reporting speed (*p=2.677e-04****), where participants from ambulant care seem to report never and/or slower than daycare and residence workers.

### 2. Receiving feedback

The answers on whether the participants receive feedback after reporting an incident are divided, as shown in *Figure 8*. A total of 10 (9.4%) participants said they never receive feedback, followed by 13 (12.3%) participants rarely, 25 (23.6%) sometimes, 33 (31.3%) often and 25 (23.6%) always receive feedback. None of the different groups show significant differences.

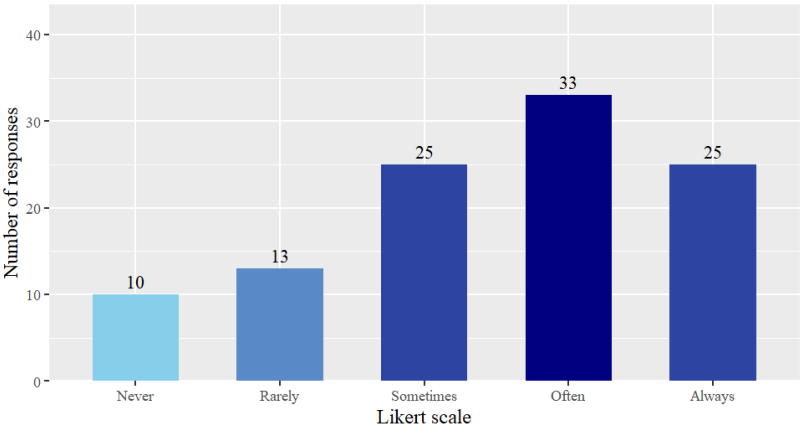



*Figure 8: Feedback rates after incident reporting. Statement: 'How many times do I receive feedback'. (n = 106, t = November - December 2024, d = survey BBG)*

From all participants, 30 (28.3%) answered that they already fill in all occurring incidents. In comparison, 54 (50.9%) people said that they will report more if more feedback on the incidents is received, but 22 (20.8%) people will not report more. Also in this question, experience in general, experience at location, and locations do not show significant differences.

### 3. Satisfaction incident reporting process

*Figure 9* reveals that 20 (18.9%) participants are not satisfied with the reporting process, 25 (23.6%) are neutral and 61 (57.5%) are satisfied. A small significant difference is seen in satisfaction levels between locations ($p = 0.021$*). However, the location types and experience do not influence the satisfaction.

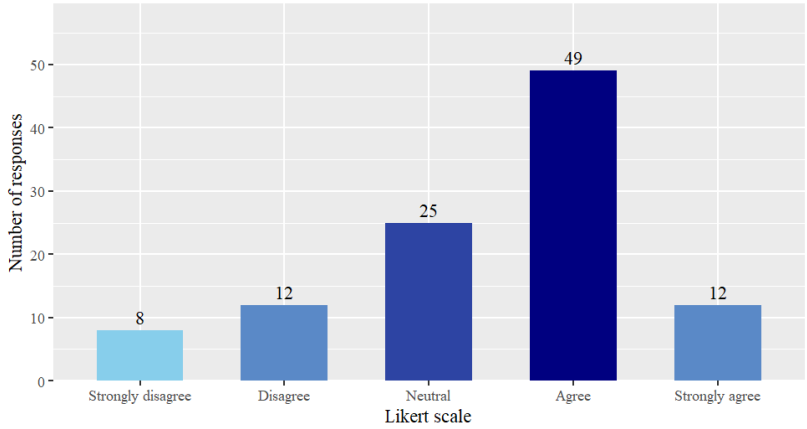



*Figure 9 Satisfaction levels. Statement: 'I am satisfied with the reporting process'. (n = 106, t = November - December 2024, d = survey BBG)*

### 4. Factors influencing the reporting process

One question asked participants to fill in (multiple) factors that influence their reporting rates. *Table 6* shows the ten most frequently mentioned factors.

| ***Reasons why a participant would not report an incident*** | ***Number of times mentioned*** |
|---|---|
| *Nothing, I always report when needed* | *41* |
| *I forget to report due to the rush* | *33* |
| *I do not have enough time* | *20* |
| *This situation occurs more often with this client (reporting not needed)* | *20* |
| *The (report) filling in time is too long* | *13* |
| *It feels like reporting does not lead to improvements of care* | *12* |
| *Unclear when something is an incident - colleagues perceive behaviour differently* | *8* |
| *Nobody got injured, so reporting not needed* | *7* |
| *I see certain behaviour as 'normal' and accept this* | *4* |
| *Someone else fills in the reports for me* | *4* |

*Table 6: Factors that influence the incident reporting process. (n = 106, t = November - December 2024, d = survey BBG)*

The answers reveal that the most frequently selected factor is that direct care workers always report all incidents, suggesting an absence of barriers to incident reporting for these respondents. Common reasons that cause missing incident reports are that direct care workers forget to report due to the rush or do not have enough time. The reason that certain behaviour occurs more often in some clients and that abnormal behaviour of clients becomes 'normal' is mentioned as well, as it does not make sense to report this every time. One reason mentioned by ambulant care workers is that in ambulant care, reporting incidents is less common and encouraged by the team and colleagues, leading to underreporting.

Complementary to the survey, two responses were received directly from the participants as clarification on their responses. In addition to behaviour becoming normal, one participant said:

*"Care workers seem to find the behaviour of clients increasingly 'normal'. A client who always swears is seen as almost normal, and an incident form is not filled out for it daily."*

Both participants mentioned that is not clear what the incident report committee does with the reports and after asking they got a vague answer. They mentioned that currently two systems are running, which makes the workflow cumbersome. They would like to only use one system:

*"For me as a caregiver, it would be very helpful if an incident form could be linked to the reporting in 'Ons'. So that only one system needs to be used."*

## 5.3 Conclusions

In Part 1, 40 residential locations and 20 daycare locations are included from BBG. Residential locations have on average higher absence rates, more absence days and higher incident rates than day care locations, even when compensated for the number of locations. Medication errors, aggression incidents, and fall incidents are the most common incident types.

In the dataset analysis three regression models were applied. The dispersion rates for all variables appear to be below 0.5. When looking at the whole absence period, an extra case of absent increases the risk on incidents with 16.7. When only including the first day of absence, this risk increases with 31.9%.

The survey results demonstrate that 98.1% of the participants think it is important to report incidents. Only differences in location types have a significant influence on the report rate and report speed, with participants from ambulant care reporting the least and the slowest. Experiences or locations do not show significant difference in the outcomes of the survey.

# 6 Discussion

This chapter evaluates the methodology, discusses the outcomes of this research, analyses the dataset and survey results, and revisits the hypothesis. Analyses of the methodological limitations is executed to assess validity. Lastly, possibilities for future research are discussed.

## 6.1 Results

The aim of this research was to find out whether there is a relation between the absenteeism and incidents, including what the absenteeism rates and incidents rates of BBG are. Previous research in three literature studies showed that unfamiliar staff, turnover, and changes in daily routines can increase the risk of incidents in general health care settings and in ID care [11–14]. This research demonstrates that residential care has more absenteeism and more incidents than day care. The higher incident rates could be explained by the type of care being given and the time clients spend on each location. The studies of Codina et al. also found that the chance of caregiver victimisation is greater in residential settings [15,16]. Ryan et al. concluded that working in secure, or residence, settings lead to more stress, suggesting that absenteeism can be higher, as stress leads to absences [12]. The yearly absence rate of BBG is 1.3%, which is much lower than the 8.1% determined by Vernet for the Dutch ID care [37]. However, it is unclear whether the absence data of BBG is complete or not.

Medication errors are the most common type of incident in residential care. That is in contrast with Zaal et al., as they found that the living situation was not associated with the occurrence of medication errors [25]. This could be caused by the fact that less medications are given to clients during the daycare than at their residence. Comparatively, aggression is relatively more common in day care. Aggression can occur in day care due to different circumstances, like other clients and direct care workers who are less familiar to the client [11,13,14].

The dispersion calculation shows an underdispersion of the data. Therefore, the most fitting regression model is the Quasi-Poisson regression model. However, this model gives the same estimates and effect sizes as the Poisson model. In conclusion, the regression model analysis shows that there is a small relation between absenteeism and incidents. The likelihood of an incident is twice as big for the first day of absence, but this is still a small relation. Worth noting is that, when other factors are included, the relation flattens. This shows that the chance on incidents if absence occurs is not bigger, but that incidents are more dependent on other factors. The variables that cause this flattening are the confounding factors: location type, location, handicap type, incident type, and whether there was an incident the day before. Explanations could be that different direct care workers work at different locations or location types, with different absenteeism rates. The handicap type influences whether a client reacts to chances or not, and the incident type is dependent on the handicap and the location of the client, so the care that is provided. An incident the day before is a confounder, and this could influence the behaviour of clients. However, the increase in the chance on a new incident was negligible small.

Worth evaluating is the causal relation which forms the basis for this research, namely the assumption that a case of absence directly causes a incident on the same day. This assumption is based on the perspective of BBG. However, incidents may not always occur immediately on the day of absence, but they could also, for example, arise on the first day that the direct care worker is present after absence. If an incident occurs later during the period of absence, it may still be caused by that absence, a factor that is not examined in this research, but could influence the results.

With a response rate of 34.5% conclusions can be drawn from the survey. Previous research showed that underreporting of incidents occurs in health care settings [31–34]. The outcomes of the survey at BBG demonstrate and conversations reveal that direct care workers do not report all incidents in ID care. The survey shows that even though almost all participants agree that reporting is important, 18.8% does report three or less incidents per five that occur. Of the participants, 38.7% does not report one out of five incidents. This indicates that underreporting occurs at BBG, which causes discrepancies between the actual number of incidents that occur and the report rates, in line with Van den Bemt et al., Willott et al. and Oweidat et al. [24,32,36]. A consequence of underreporting is that incidents are not discussed and interventions are not initiated. In conclusion, the incident dataset used in Part 1 is not complete due to this underreporting. The validity of this dataset is therefore insufficient, which must be kept in mind when drawing conclusions on the data analysis.

The survey further reveals that work experience in general, work experience at the current location, and locations appeared to not influence the different variables in the reporting process. For work experience, this research did not look at the differences between permanent direct care workers, free lancers and interns, where differences may have appeared. However, the location types do have an influence on the report rates and the reporting speed, with ambulant care reporting less than residential care and day care. This influence could be caused by two participants from ambulant care who consistently answered that they do not fill in incident reports and by the fact that reporting incidents is less common and less supported in ambulant care.

A key conclusion is that around 18.9% of the participants is negative and 23.6% is neutral about their satisfaction on the reporting process, suggesting that there is room for improvements in the reporting process at BBG. Recurring factors that influence the incident reporting rates are that reporting takes too much time and is not efficient. This research demonstrates that direct care workers have to register in one program and need to fill in incident forms in another program, causing double registration. People tend to forget or do not have time to report due to their busy work schedules, just as is shown by Oweidat et al. [32]. Not receiving feedback and not seeing improvements causes people to not fill in incident reports, just as Archer et al. and Pfeiffer et al. concluded [31,34]. These factors suggest that the process should become more efficient by, for example, working with one program for everything, making the incident forms shorter by deleting duplicate or irrelevant questions, and lastly the definition of an incident should be clearer described. Donovan et al. explained that behaviour of clients became ‘normal’ or incidents were seen as too minor to report [35]. This is in line with one of the factors that influences direct care workers from BBG to not report incidents, as direct care workers perceive behaviour of clients differently. Participants said that when the reporting process improves and they receive more feedback, they would report more, which is supported by Cooke et al., but contradicted to Pfeiffer et al. where feedback did not have a positive effect on the willingness to report [33,34]. As reporting more would improve the data on incidents, more prediction models could be made on incidents. Two factors were less mentioned in this research, but are reported in other studies: respondents are worried about the disciplinary actions [32], and peer pressure for reporting [34].

In conclusion, contradicting to the hypothesis, which expected a relation, there is no significant relation between absenteeism and incidents based on the used data. These unexpected results could be explained by the fact that the survey shows that not every incident is reported and only the incidents regarding clients are included. BBG has a second incident dataset regarding direct care workers, which is not included. For these two reasons, the dataset on incidents is not complete, which can cause distorted results. However, the quantitative study suggests, as explained in the *Introduction*, that when shortages occur at locations, direct care workers of other locations could be relocated to solve these shortages fast. This will not lead to more incidents with clients.

## 6.2 Limitations

Both research parts have some limitations. The survey research demonstrates that the incident data is not complete and incident data on direct care workers is excluded, causing distorted data and making it hard to draw conclusions. The datasets have some limitations, causing incomplete and unreliable data. First, the number of clients living at each location is unknown in the data, which is not rectified in the data analysis, but could influence the number of incidents occurring. Second, some locations have less than ten reports of either absenteeism and/or incidents in the whole timeframe of five years, which is not representative. Third, in the absenteeism dataset, it is unknown what job the employees had. The data therefore contains not only direct care workers, but possibly also other employees. Lastly, the dataset of absenteeism contains periods of time where employees were partly absent. The data sometimes contains multiple rows for the same period of absence, but with varying percentages of presence. For example, someone was sick for two weeks, but had the first week no attendance, and the second week 50.0% attendance. This means that this employee was partly working, but at which days is unknown. For that reason, the choice is made to delete the duplicate rows and assume that the employee was completely absent. The consequence is that assumptions of absences could be wrong, as the employee was present on some days, which might influence the results.

Another possible limitation is that the timeframe for the data corresponds with the Covid-19 pandemic. This might affect the absenteeism rates. For follow-up research it is recommended to take data from other periods in time. However, for this research that was not possible, as absenteeism data is not collected before 2018 at BBG.

Limitations of surveys in general are the impossibility to ask questions to the respondents and they cannot clarify their answers [52]. With a digital approach direct care workers can easily ignore the request, which leads to less cooperation. For this survey, the choice is made to not take action to prevent multiple participation, which means that respondents could fill in the survey multiple times, which can influence the results. However, anonymity is more important, so that people shared their honest opinions [52]. The survey was not tested on direct care workers in advance, because as many as possible answers were needed for the analysis. Therefore, feedback on the questions could not be adjusted, leading to possible missing information. One question that would have been interesting regards the definition of incidents and whether it is clear for direct care workers when something is really an incident and when they should report something.

The conclusions on the differences between location types of participants of the survey seem to be doubtful, as there was little response from ambulant care workers. This is caused by the fact that they were initially not invited to participate. However, there are only two teams at BBG that provide ambulant care, making the target group small. There are eight respondents, and their answers are therefore still insightful and interesting to analyse. To improve the trustworthiness of the results, more ambulant care workers should be asked to fill in the survey, to see if the variance in the answers is a coincidence or not.

## 6.3 Further Research

This research is the first data-driven study at BBG. Therefore, it was an exploratory research and many questions remain from practical perspective. There are many possibilities for further research of which several are explained.

The following points shows where the current research method should be improved in further studies:

- Adjust the datasets for the number of clients per location

- Analyse locations with low absence and incident rates
- Research only direct care workers
- Gain insights into the attendance rates during absence
- Include the other incident reports regarding direct care workers as well
- Include ambulant care workers in the data analysis
- Improve the reporting process, so all occurring incidents are reported, and the incident dataset is more complete

If all or some of these adaptations are implemented, replicating the study would be insightful. A potential factor that could have influenced this research, and in particular the absences, is Covid-19. Conducting this research after the pandemic may show different results.

This research highlights other types of research that are recommended for BBG or other ID care instances. First, it is valuable to complete this research by looking at the second step of the incident reporting process, the feedback part. So, researching whether feedback on incidents is communicated back to the direct care workers and identify how this could be improved.

Second, this research can be reversed to explore whether incidents have an influence on absences. Conversations revealed that some incidents can be mentally challenging. This research has the same two inputs, data research and qualitative research among direct care workers. Note that data research may be difficult as some care workers directly stop working and others continue working for days or even months after an incident before they stop. However, identifying patterns and developing a prediction model would be very interesting for BBG, so they can implement interventions, to improve the mental well-being of their workers.

Third, BBG employs freelancers and interns. Freelancers are new to an organisation and need to get used to new ways of working and registering. Interns are often young and inexperienced. Research into the influence of their care and how these groups affect incident rates could provide useful insights.

Fourth, this study reveals that, possibly, incidents are not caused by changes in the direct care workers. Therefore, a new research could explore the potential of redeployment of direct care workers in different locations. This research should focus on whether care workers would be open to be redeployed in the case of temporarily shortages and how this process should be organised. Moreover, other factors that relocating influences should be researched. Qualitative research on direct care workers opinions towards collaboration and flexibility would be interesting.

Lastly, conversations during the research reveal that not all direct care workers are competent in digitisation and digital skills are needed to register and fill in incident reports. Many new employees are informally trained by colleagues, resulting in variations in digital skills and in registering. Research into these competencies BBG will show insights and shows how to develop targeted digital training programs.

Looking from a scientific perspective, and knowing that the absenteeism and incidents rates are high in ID care, this study should be conducted in more different ID instances, and not only at BBG. This would give insights into the differences in different organisations and what the absenteeism rates, incidents rates, and the relation between the two are at other places, so that the results are more generalisable to the entire Dutch ID care system. This study can be used as base for further studies, as potential confounders are discovered, which can considered for these further studies. Additionally, the results for the survey are scientifically useful, as these give insights into reporting rates in the ID care. To generalise this, however, also a broader research must be conducted, as the target group is too small to generalise it to other ID instances.

# 7 Conclusion

This research gives valuable insights into the incident reporting process of BBG and the relation between absenteeism of direct care workers and incidents with clients. This is the first data-driven study at BBG and contained challenges with unclean data and many other questions that must be investigated to ensure good conclusions from the data analysis. This chapter presents the answers on the research question and sub-questions.

The data shows that absenteeism rates and incident rates differ for different ID locations, and that residence locations have higher rates than day care locations. Based on the data analysis and considering the confounders, there is not an influence of absenteeism on incidents. When an extra unit of absence occurs, there is no increase in the chance of incidents. This applies when considering incidents on all days of someone's absence, but also when only considering the first day of an absence period. This result is contradictory to the hypotheses, as a relation was expected. This could be explained by the fact that the dataset on incidents is not complete, caused by underreporting and only one out of two types of incidents is included.

In total, five confounding factors showed to influence the relation between absenteeism and incidents, including location type, location, handicap type, incident type, and whether there was an incident the day before. The type of handicap influences the relation between absenteeism and incidents, but it is hard to determine the strength of influence as many locations provide care for multiple types. However, data shows that a combination of mild/severe/profound ID at a location has the highest chance of getting an incident due to absenteeism. Additionally, residential locations show higher absenteeism and incident rates than day care locations.

BBG registers data on absenteeism and incidents, but the datasets reveal some inconsistencies and areas for improvement. Data collection on absenteeism started in 2018, however, some locations report very few absences over the five-year period, making the accuracy and completeness questionable. The incident data looks complete and clean. However, the survey reveals that only 42.5% of the direct care workers report all incidents. The other respondents have report rates varying from zero to four incidents per five that occur, which suggests that 57.5% underreports and the incident dataset is not complete. Not all participants from the survey are satisfied, and improvements should be implemented. Most respondents stated that they report all incidents that occur. However, the remaining group is influenced by factors such as forgetting to report, lack of time, and recurrence of incidents with the same client.

In conclusion, according to this research findings, changes in direct care workers, due to absenteeism, does not necessarily lead to more incidents. This shows that the performance of BBG is not affected by incidents caused by absenteeism and the number of incidents cannot be decreased by preventing absenteeism. However, BBG can look at ways to resolve shortages by relocating direct care workers.

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# Appendices

## Appendix A: Included locations from Baalderborg Groep

| *Location* | *Type of care* | *Mean frequency of absences per year (sum of absence days)* | *Mean number of incidents per year* |
|---|---|---|---|
| *Alteveer* | Day care | 15.4 (476.4) | 29.4 |
| *ArtCrew* | Day care | 4.8 (117.2) | 2.0 |
| *Dagbesteding Rijssen* | Day care | 12.2 (282.8) | 10.8 |
| *Dagbesteding Stegerveld* | Day care | 7.0 (226.0) | 11.0 |
| *Dagbesteding VDM* | Day care | 1.8 (19.6) | 0.2 |
| *Dante* | Day care | 21.2 (835.6) | 33.2 |
| *Holte* | Day care | 34.2 (446.4) | 29.4 |
| *Koppeling* | Day care | 20.8 (740.2) | 3.4 |
| *Roots* | Day care | 10.4 (262.8) | 6.6 |
| *Spindel* | Day care | 8.6 (310.4) | 26.6 |
| *t Gilde* | Day care | 4.2 (22.4) | 0.4 |
| *Tuingroep Baaldergroen* | Day care | 2.6 (16.8) | 1.4 |
| *Vlinder* | Day care | 4.8 (32.0) | 0.4 |
| *Vuurtoren* | Day care | 4.6 (153.8) | 1.6 |
| *Wanne* | Day care | 49.2 (1580.0) | 14.8 |
| *Wijkboerderij* | Day care | 6.4 (121.0) | 5.4 |
| *Wijkteam Den Ham* | Day care | 1.8 (11.2) | 1.0 |
| *Wijkteam Nijverdal* | Day care | 1.4 (41.4) | 0.6 |
| *Wijkteam Westerhaar* | Day care | 1.0 (19.6) | 1.0 |
| *Wijkteam Hardenberg e.o.* | Day care | 1.6 (9.4) | 2.6 |
| *Blanckvoortallee* | Residence | 34.0 (1011.8) | 72.6 |
| *Bremstraat* | Residence | 17.0 (236.8) | 88.4 |
| *Dahliastraat* | Residence | 14.4 (318.8) | 19.0 |
| *De Esrand / De Wilg* | Residence | 13.0 (379.0) | 16.2 |
| *Fluitekruid* | Residence | 10.2 (209.0) | 2.8 |
| *Gerard Doustraat* | Residence | 23.6 (408.6) | 30.0 |
| *Grasklokje 45* | Residence | 10.8 (248.8) | 11.4 |
| *Grasklokje 80* | Residence | 16.4 (443.2) | 19.6 |
| *Hazelaar* | Residence | 25.4 (1117.2) | 31.6 |
| *Hei en Dennen* | Residence | 20.0 (741.8) | 51.4 |
| *Hof van Pepijn* | Residence | 19.8 (940.6) | 12.4 |
| *Hoogenweg* | Residence | 22.4 (477.0) | 11.4 |
| *Hoogenweg 1e verdieping* | Residence | 22.2 (458.2) | 59.4 |
| *Jeruzalemweg* | Residence | 17.8 (745.6) | 44.4 |
| *Koekange* | Residence | 16.0 (616.6) | 14.6 |
| *Linde* | Residence | 35.0 (783.2) | 55.8 |
| *Mauritshof* | Residence | 4.2 (21.0) | 11.2 |
| *Muldershoek – de Wieke* | Residence | 11.6 (257.8) | 21.6 |
| *Muldershoek – van Rooijenshoek* | Residence | 22.8 (950.4) | 18.2 |
| *Mulert* | Residence | 15.0 (557.0) | 32.6 |
| *Nicolaas Beetsstraat* | Residence | 17.0 (604.6) | 33.4 |

| | | | |
|---|---|---|---|
| *Niehof* | Residence | 27.0 (1120.0) | 67.2 |
| *Nieuwe Wever* | Residence | 14.8 (205.8) | 29.0 |
| *Oldenburg* | Residence | 27.6 (1085.6) | 16.6 |
| *Pijlkruid* | Residence | 18.2 (312.8) | 32.4 |
| *Spoor 12* | Residence | 27.8 (1262.2) | 18.4 |
| *Stegerveld* | Residence | | |
| • *Woning 1* | | • 18.6 (343.6) | • 40.6 |
| • *Woning 2* | | • 13.6 (391.2) | • 19.6 |
| • *Woning 3* | | • 15.8 (451.8) | • 37.8 |
| • *Woning 4* | | • 12.6 (218.6) | • 34.2 |
| *Tyehof* | Residence | 29.2 (1122.0) | 68.4 |
| *Vlasakkerkamp 10* | Residence | 6.6 (67.0) | 13.2 |
| *Vlasakkerkamp 12a* | Residence | 20.8 (860.2) | 27.6 |
| *Vlasakkerkamp 14-16* | Residence | 21.6 (1020.6) | 104.6 |
| *Vlasakkerkamp 15-17* | Residence | 34.4 (704.6) | 53.4 |
| *Vlasakkerkamp 2* | Residence | 15.2 (479.2) | 52.2 |
| *Vlasakkerkamp 21* | Residence | 56.8 (2938.2) | 93.8 |
| *Vlasakkerkamp 4* | Residence | 11.0 (183.2) | 27.6 |
| *Waal* | Residence | 30.4 (946.0) | 24.2 |

# Appendix B: Survey

Introductie

Hartelijk bedankt dat u wilt deelnemen aan deze vragenlijst. Deze vragenlijst is bedoeld voor persoonlijk ondersteuners van Baalderborg Groep. Door het invullen van deze vragenlijst gaat u akkoord met het gebruiken van de antwoorden voor mijn onderzoek. De vragenlijst is volledig anoniem en gaat over het incident meldproces en ik wil u graag vragen om de vragen goed door te lezen. Het zal ongeveer 5 minuten de tijd kosten om dit in te vullen.

Betekenis incident: Een incident wordt omschreven als er in de zorg onbedoeld en onverwachts iets niet goed is gegaan, waarbij een cliënt of medewerker lichamelijk of geestelijk schade heeft opgelopen, schade had kunnen oplopen of nog schade kan oplopen.

Deel 1 – Algemene data

1. Hoe lang werkt u al in de gehandicaptenzorg?
2. Binnen welke doelgroep bent u werkzaam?
    a. LVB
    b. LVB+
    c. MVB
    d. MVB+
    e. EVB
    f. EVB+
    g. EMB
    h. EMB+
    i. IB
3. Op welke locatie bent u werkzaam?
4. Hoe lang werkt u op deze locatie?

Deel 2 – Incidenten melden

5. Ik vind het belangrijk dat incidenten gemeld worden:
    a. Helemaal mee eens
    b. Mee eens
    c. Niet mee eens en niet mee oneens
    d. Mee oneens
    e. Helemaal mee oneens
6. Ik meld alle incidenten
    a. Helemaal mee eens
    b. Mee eens
    c. Niet mee eens en niet mee oneens
    d. Mee oneens
    e. Helemaal mee oneens
7. Hoe vaak meldt u de meegemaakte incidenten:
    a. Ik meld alle incidenten
    b. Ik meld 4 op de 5 incidenten
    c. Ik meld 3 op de 5 incidenten
    d. Ik meld 2 op de 5 incidenten
    e. Ik meld 1 op de 5 incidenten
    f. Ik meld nooit incidenten.

8. Hoe snel meldt u (gemiddeld) een incident?
    a. Direct nadat het gebeurd is
    b. Binnen een dag
    c. Binnen een week
    d. Binnen een maand
    e. Niet
9. Mogelijke verbeteracties na incidentonderzoek worden teruggekoppeld aan de locatie of persoonlijk ondersteuner:
    a. Altijd
    b. Vaak
    c. Soms
    d. Zelden
    e. Nooit
10. Ik ben tevreden met het huidige systeem van MIC en MIM-meldingen:
    a. Helemaal mee eens
    b. Mee eens
    c. Niet mee eens en niet mee oneens
    d. Mee oneens
    e. Helemaal mee oneens
11. Om welke redenen vult u geen MIC/MIM formulier in (Meerdere antwoorden mogelijk)
    a. Ik heb niet genoeg tijd
    b. Ik vergeet te melden door drukte
    c. Ik weet niet wat ik moet rapporteren
    d. Ik kan het formulier niet vinden
    e. Het formulier is te lang
    f. Het formulier is te ingewikkeld
    g. Mijn collega adviseert niet te rapporteren
    h. Iemand anders vult het formulier voor mij in
    i. Ik wil niet rapporteren over een collega
    j. Ik ben bang voor de gevolgen
    k. Ik ben bang voor mijn eigen anonimiteit en/of die van de cliënt
    l. Ik heb het gevoel dat meldingen niet tot verbeteringen van zorg leiden
    m. Er is een gebrek aan feedback
    n. MIC en MIM-meldingen worden niet serieus genomen
    o. Niemand is gewond geraakt, dus het is niet nodig
    p. Als ik het bespreek met de betrokken personen, hoeft er verder niks gedaan te worden
    q. Deze situatie komt vaker voor bij deze cliënt, dus niet nodig om te melden
    r. Niks, ik rapporteer altijd wanneer dit nodig is
    s. Anders, namelijk ….
12. Indien u altijd feedback zou krijgen na een MIC/MIM melding, zou u dan altijd een formulier invullen?
    a. Ja
    b. Nee
    c. Niet van toepassing – ik vul ze al altijd in