

Research Design Project

Job-crafting towards strengths to decrease intentions to quit and staff turnover of direct care workers.

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Literature Review

Direct care workers (DCWs) who provide essential care for those with intellectual and developmental disability (IDD) are at risk of stress and exhaustion (Quilliam, Bigby & Douglas, 2018) due to high levels of demands placed on them as they are often depended upon by clients for day-to-day care (Sheehan et al., 2020). Organisations have both a legal and moral duty to ensure the welfare of their employees (Hastings, Horne & Mitchell, 2004), therefore they should strive to mitigate work stress through intervention. Turk, Landes, Formica & Goss (2020) identified that individuals with IDD are at greater risk of severe symptoms following contraction of COVID-19. This is due to the fact they often have significant health comorbidity, such as obesity and respiratory disease among others (Cooper et al., 2015). Settings such as group homes were found to be vulnerable to the rapid spread of infection (Landes, Turk, Formica, McDonald & Dalton-Sevens, 2020) prior to the vaccination roll out. Those with IDD were likely to experience service disruptions, routine breaks and limited contact with family, friends and known staff (Courtenay & Perera, 2020). This may have also put them at risk of problematic psychological effects as a result of the drastic changes in everyday life due to the national lockdown. Bull, Oliver, Callaghan & Woodcock (2015) found that when those with neurodevelopmental disorders are likely to prefer routine and show challenging behaviour following changes to these. Therefore, when the lockdown meant that normal routines could not go on, this could have led to physical and psychological struggles for both service users and DCWs in group homes. DCWs had to

adopt new ways of working in order to balance both continuity of care (to protect against mental health risks) and infection transmission reduction using personal protective equipment (PPE), in addition to increased cleaning and hand washing procedures (*A COVID-19 Guide for Care Staff Supporting an Adult with Learning Disabilities/Autism*, 2021). This means that job demands and therefore perceived workload would have likely increased for DCWs during the pandemic. Excessive workplace demands and a low level of control are both factors that have been shown to be related to higher stress levels and burnout among DCWs who work with those with IDD (Ryan, Bergin & Wells., 2021) which may have led to increased levels of work stress

Sheehan et al. (2020) conducted a UK-wide online survey between 22nd April and 12th May 2020 investigating the responses of 648 staff working with people with IDD during the beginning of the pandemic. Having to adapt too quickly to a new way of working, increased service user needs due to termination of work or education and difficulty maintaining adequate levels of support were rated as the most relevant challenges during this time. The most salient concern from staff was the implementation of safety measures to reduce transmission risk and guidance from their employer was rated as the most important source of help at work. Thus, results of this study indicate that the COVID-19 pandemic has placed a great strain on DCWs providing mental health services for those with IDD in group homes, therefore an employer-led intervention to mitigate these risks is necessary in order to be prepared for future outbreaks and combat work stress in DCWs.

According to Leoni et al (2020), burnout is a job-related illness that is often considered a consequence of chronic work-related stress. Maslach & Jackson (1981) first coined the term including 3 distinct elements in the definition: feeling emotionally exhausted, loss of feelings of accomplishment on the job and negative, cynical and depersonalising attitude towards service users. Leoni et al (2020) built on this definition and stated that

burnout is considered a label for a broad set of psychological processes where longer-term exhaustion results from initial feelings of stress at work. Those who work with individuals with neurodevelopmental disorders (NDD) are at particular risk of burnout because challenging behaviours displayed by many service users with NDD are often the most impacting factor associated with stress and burnout (Leoni et al., 2020). Psychological condition of professionals often impacts the quality and quantity of human interactions; the review conducted by Leoni et al (2020) included studies that explored the consequences of stress and burnout in those who work with individuals with NDD. They reported a number of outcomes of stress and burnout in this population including lower levels of production, quality of direct support and interaction with clients, negative emotional reactions and a higher risk of physical and mental abuse towards clients.

Outar & Rose (2017) describe burnout as a longitudinal process that occurs after a period of prolonged stress. They investigated the relationship between work demands and burnout to establish mediating variables of the relationship by measuring burnout, role identity, self-determination and work demands in 70 staff who work with those with IDD through questionnaires. A relationship between work demands and burnout was found, and role identity and self-determination did not mediate the relationship. Therefore, individual factors should not affect intervention outcomes that aim to reduce work demand to consequently reduce burnout in DCWs. It must be noted that the use of self-report measures, and the fact participants may have returned the questionnaires via their manager could have resulted in social desirability bias in responses; staff could under report on items they define as negative such as levels of burnout. However, scores were found to be comparable to previous studies (Outar & Rose, 2017), therefore this is unlikely. Additionally, the use of 4 questionnaires may have been too much for participants, especially as they were busy and likely stressed professionals; it was noted that several were returned not completed and thus

couldn't be used. This reduces the external validity of findings as it resulted in a reduced sample size. Lastly, only correlational relationships were revealed, therefore further study is needed to establish causal relationships between the variables. Nevertheless, these results form an interesting basis for future research, if stress can be reduced by an intervention this may lead to stopping the development of burnout in DCWs.

According to the original definition (Maslach & Jackson, 1981), emotional exhaustion is the first phase of burnout, thus it may be possible to prevent burnout from developing if emotional exhaustion can be reduced first. Maslach & Jackson (1984) defined emotional exhaustion as a feeling of excessive emotional stress and being drained by contact with others. In order to prevent emotional exhaustion, one must have knowledge of its predictors. Kowalksi et al (2010) aimed to investigate the associations between emotional exhaustion, social capital, workload and latitude in decision-making among caregiving and pedagogical staff for people with IDD and physical disabilities in Germany, after controlling for gender, age, work experience and job tenure. Participants responded to an anonymous questionnaire via email that measured work organisation factors. Workload and latitude in decision-making were found to be factors of work organisation related to emotional exhaustion; with workload having the strongest relationship. Therefore, strategies to reduce emotional exhaustion and thus burnout should be aimed at improving these factors of work organisation by creating a participative working atmosphere and reducing workload, because they are likely to play a prominent role in the development of burnout. Reducing workload should be the first aim of an intervention to reduce risk of burnout because it had the strongest relationship with emotional exhaustion; however, it must be noted that the results are correlational only, therefore further study is needed to establish whether workload has a direct relationship with emotional exhaustion and thus burnout.

Pourteimour, Yaghmaei & Babamohamadi (2021) conducted a cross-sectional study of 139 nurses working in intensive-care units (ICU), infection disease wards and emergency units of 2 Iranian hospitals during the COVID-19 pandemic to investigate the relationship between mental workload and job performance using a questionnaire. The nurses had significantly higher levels of mental workload than before the pandemic and a negative effect of mental workload on the nurse's behaviour and performance was found. However, job performance had no significant correlation with mental workload. This variability in findings may be due to varying abilities of the nurses to deal with crises and possibly external encouragement received from the organisations they work for. It could be also due to the fact the nurses were extremely busy and stressed and therefore may not have concentrated on the questionnaires they were responding to; they may have been tired which would have affected the answers they gave.

Workload management programmes therefore may help reduce mental workload to enhance job performance. It was also found that frustration caused by workload had a significant negative correlation with job performance, therefore one can conclude that if frustration was reduced, work performance may increase, so managers and managing organisations may aim to target this. Due to the weak positive correlation between mental workload and job performance, workload management interventions may reduce mental workload and thus enhance job performance. Organisations should strive to effectively manage resources to aid staff to manage their workload by creating a positive working atmosphere to empower and motivate staff, which will improve their job performance, thus patient care and outcomes. It must be noted however that study was conducted with a limited number of nurses in a small region of Iran, therefore findings must be taken with caution as they may not be valid in other populations. Further study is needed to establish if these

findings apply to DCWs under similar stress to establish if interventions targeting frustration and workload would be effective in this population.

Higher absenteeism and turnover were also found to be a consequence of stress and burnout in DCWs by Leoni et al. (2020). Specifically, burnout was associated with increased job turnover. Skills for care (2019) reported that in 2018/19 there was a 34.1% turnover rate for DCWs in England. This is problematic because it has been found that high turnover rates can lead to poor continuity of care (Hatton, 1999). Additionally, burnout has been found to be associated with lower client safety and reduced quality of client care because of its relation to high turnover (Kowalsi et al (2010). Fluctuation of staff levels requires continued training and instruction of new employees; meaning that staff are likely to not display behaviour synonymous with working perfectly and training involves monetary, time and space costs. This was highlighted in a review of nursing turnover research by Tai, Bame & Robinson (1998) as high organisational costs were associated with high turnover.

Intentions to quit can be a precursor for staff turnover; Gray & Muramatsu (2013) aimed to establish which dimensions of work stress and resources were associated with intentions to quit when controlling for individual sociodemographic and work-related characteristics. They also aimed to identify if the associate between these resources and intentions to quit were dependent on work stress and how. They administered a cross-sectional survey to DCWs working with adults with IDD in residential, vocational, personal, respite and foster care services. Scales were used to measure intentions to quit, work stress, work social support and locus of control. Work overload was the only stressor that was statistically significant; stressed workers were likely to intend to quit as those who reported higher levels of work overload also were more likely to report intentions to leave their job. It was also found that if workload was perceived as heavy by the worker, this was a disincentive to remain on the job. Additionally, there was a direct association between

supervisory support and low intentions to quit rather than co-worker support. Therefore, managers in this workforce should examine the workloads of their staff for perceived manageability and make efforts to improve the social support they provide. This in turn may reduce turnover and thus training costs, ultimately resulting in more satisfied staff and service users and possibly client outcomes. Further study is needed to confirm these hypotheses to establish whether increasing the perceived manageability of workload would actually result in less staff turnover.

A more recent study demonstrating the association between exposure to challenging behaviour and burnout symptoms in DCWs came from Klaver et al (2020). The aim of this study was to also identify direct and moderating effects of possible psychological resources on burnout symptoms. An online survey was distributed to 1271 DCWs who worked for organisations delivering day or residential services to individuals with IDD in the Netherlands. The survey measured exposure to challenging behaviours and a range of potentially protective or compensatory psychological resources; ability to recover from stress, self-efficacy and perceived supervisor and co-worker social support. A significant positive correlation was found between scores on exposure to challenging behaviours and emotional exhaustion, therefore this is still a problem faced by DCWs today, thus still warrants intervention. Results suggested the perceived supervisor social support was valuable, therefore accessible and readily available supervisor social support may be important for reducing burnout symptoms. Further study is needed to confirm this hypothesis, and it must be noted that these findings may not be valid in other populations outside of the Netherlands.

Organisational behaviour management (OBM) procedures are currently considered the standard to change contextual factors impacting on stress and burnout in human service personnel (Leoni et al., 2020). Sturmeijer (1998) defined OBM in this context as the training and management of the treatment related performance of human service personnel.

According to Leoni et al (2020), the best way to prevent stress and burnout in professionals working with people with NDDs is to implement a number of tasks using a precise behavioural methodology in 2 areas of intervention: organisational factors and individual factors. This is because when professionals don't address challenging behaviours as required this is usually because of a lack of specific skills or lack of motivation; this in turn could increase the frequency and severity of challenging behaviours, thus exposing the DCWs to stressful conditions, putting them at risk of developing burnout. Therefore, it is in the best interest of both the staff and service users to utilise an OBM framework when implementing an intervention to combat stress and burnout in DCWs.

Schell (1998), as cited in Leoni et al (2020) outlined the core tasks to address in intervention regarding organisational factors. Roles, responsibilities and duties must be clarified with a precise schedule. All staff members must receive training and refresher training on general rationale, protocols and specific skills in vivo via behavioural skills training and directly through modelling and feedback. Data should be observed, measured and analysed and feedback is to be provided on required skills as well as personal attitude and performance using this data.

Leoni et al (2020) also summarised how modelling and shaping of both performance and antecedents can stimulate changes in learning processes used by DCWs and constitute a base for implementing individual level interventions. Motivation is defined as the willingness to apply the required skills and the satisfaction and individual receives from doing a specific activity (Reid & Parsons, 2000). By increasing the access to positive consequences of job performance, this reinforces correct behaviour in DCWs because they are likely to be more committed to behaving in a way that results in positive consequences. The procedure summarised by Leoni et al (2020) is split into 2 sections: modelling and shaping. Modelling involves using shadowing of required behavioural skills by the staff member to give attention

and participation and to understand the preferences as well as avoided stimuli of the staff member through a full and structured assessment. Shaping involves shaping of performances through training and feedback in addition to shaping of antecedents through organisation and planning, deep knowledge of the clients, environment modification and individualised treatments. This is an excellent framework and guide developed from reviewing interventions and perspectives surrounding the stress and wellbeing among DCWs by Leoni et al (2020); however, it is very complex and is likely to take lots of time and monetary investment to implement fully. Therefore, future interventions should use this suggestion as a benchmark, however, not be stringent about sticking to every aspect as it is more than likely to not be possible in the general population.

Job-crafting is one way that individual employees can evaluate their own motives, strengths and passions (understanding preferences) and incorporate them in their job demands to create a challenging and fitting work environment that increases work engagement because it fosters enthusiasm and absorption (Harju, Hakanen & Schaufeli, 2016). It has been said that work engagement provides a critical indication of employee well-being and health (Laschinger & Finegan, 2005). Kooij, van Woerkom, Wilkenloh, Dorendoscg & Denissen (2017) conceptualised job crafting in terms of adjusting the job to individual interests and strengths and a bottom-up approach promoting self-initiative of the employees.

Kuijpers, Kooij & van Woerkom (2020) conducted a quasi-experiment evaluating the relationship between job crafting and work engagement of employees providing care for elderly people with disabilities in the Netherlands. They measured job crafting behaviour, work engagement and workload through questionnaires before job-crafting workshops began. Work engagement consisted of 3 factors; dedication, vigour and absorption. As well as this, participants had to complete a homework task in which they had to identify their strengths, interests and biggest achievements and ask 10 people in their immediate environment to

complete this too. They then took part in a 2-hour job-crafting workshop then another 1-hour workshop 3 weeks later to discuss if they had accomplished goals set in the first workshop. A post-test questionnaire was then completed by treatment and control participants to track job crafting behaviours and work engagement.

Among workers with a high workload, participating in the intervention was significantly related to job crafting towards interests which was associated with increased dedication and absorption of the workers only. However, job-crafting towards strengths was positively associated with all 3 dimensions of work engagement. Interestingly, engagement in the intervention was not associated with job crafting behaviour among all employees. This could be due to the fact it is a very personal intervention, depending solely on the individual employee and as before mentioned supervisor social support is often important to DCWs. Similarly, employees may have found it difficult to grasp their personal resources, for example they may not identify strengths as strengths because they come so naturally to them. This intervention was very short, it only consisted of 3 hours of workshop within 8 weeks; job-crafting behaviours may take more time or require more support to increase.

This study is useful as it provides an initial framework to increase job-crafting in order to increase work engagement, especially in employees with high workloads. This is important because Robertson & Cooper (2010) have noted that engaged employees have a higher well-being and better health. In addition, this could lead to benefits for organisations because work engagement has also been found to be a strong predictor of job satisfaction, thus reduced staff turnover (Kristof-Brown, Zimmerman & Johnson, 2005) which as before mentioned has many positive outcomes regarding investment and client outcomes. Additionally, the fact this intervention has been shown to be effective in those with high workloads is incredibly important; this suggests that it could work to reduce burnout in DCWs because they are likely to come under high work demands and have a high workload.

Therefore, it can be said that job-crafting towards strengths may increase work-engagement therefore decrease burnout, intentions to quit and high staff turnover of DCWs working with individuals with IDD in residential settings.

Proposed Methodology

Hypothesis

It is proposed that 6-monthly senior staff turnover, defined as the percentage of full-time (working at least 30 hours per week) direct care workers (DCWs) leaving the residential home, and intentions to quit will decrease as a result of an hour-long weekly supervisor-led job-crafting towards strengths workshop.

Proposed Methods

Participants and Recruitment

Participants in this study will be full-time DCWs who are group leaders that work within one residential home in England and have provided informed consent. These participants have been selected as they manage DCWs with less experience as well as complete daily tasks of the DCWs; thus, they are likely to have a high workload and therefore be at risk of burnout, and possibly intending to quit. Participants will be recruited via email invitation to their work email that will include a description of the study, its benefits and possible risks, in order to gain informed consent. After the termination of the study, participants will receive an emailed debrief about the findings and future implications. Ideally all 3 staff will participate to ensure the intervention benefits the organisation as much as possible.

Data Collection

Intentions to Quit. Intentions to quit will be measured using the Michigan Organizational Assessment Questionnaire (Camman, Fichman Jenkins & Klesh, 1983, as cited in Gray & Muramatsu, 2013). This is a 3-item scale whereby participants need to rate the likelihood of them looking for new job, finding a new job with another employer and considering quitting on a 7-point Likert scale. The total score is the sum of the 3 items and the higher their score, the greater their likelihood of intentions to quit. This will be collected before the intervention, then monthly during the year intervention, followed by a six-month follow up after intervention termination.

Staff Turnover. Objective retrospective turnover data from the past year will be collected from the organisation to use as a baseline measure. From then on 6-monthly turnover data will be collected, defined as the percentage of staff who leave employment at the residential home. After 1 year of weekly job-crafting workshops, maintenance data will be collected yearly to establish whether the effect has maintained over time.

Study Design

A multiple-baseline across individuals design will be used. Baseline levels of intentions to quit will be measured weekly using the self-report questionnaire detailed above, until steady state responding is reached. Each participant will take part in the intervention consecutively. For example, participant 1 will start the intervention once steady state responding in levels of intentions to quit has been achieved, participants 2-5 will stay in baseline, completing the intentions to quit questionnaire weekly. Once Steady state responding in intervention has been achieved for participant 1, participant 2 will start their intervention stage whilst participants 3-5 stay in baseline and so on.

Intervention

The job-crafting toward strengths intervention will be run by supervisors and based on the workshops implemented by Kuijpers et al. (2020). Prior to the workshop, the participants will complete the Reflected Best-Self exercise (RBS) (Roberts, Dutton, Spreitzer & Quinn, 2005 as cited in Kuijpers et al., 2020) which will be emailed to them to map out their strengths. They will then need to ask any one member of senior staff to them, such as a group leader, manager or supervisor to also complete the RBS for them.

The workshop will run the same as that in the study by Kuijpers et al. (2020) but focus only on strengths and will be run by supervisors, who will have received prior training. Employees will identify all the tasks they perform as part of their job. Next the participants will review the RBS task they had completed and indicate which of their work tasks reflect their strengths the best. Lastly, participants will then choose a work task they would like to craft to align with their strengths and formulate a short-term and concrete job crafting goal along with a plan to accomplish the goal in a week. After 1 week the participant will discuss with their supervisor whether they accomplished the goals and ways to cope with setbacks. In addition to this, if their short-term goal has been met, they will choose another work task to craft to align with their strengths. Weekly, they will review each goal they have set so that outcomes of past goals are maintained over time.

Critical Discussion of Proposed Methods

Using a multiple-baseline across individuals design means that reversals are not required to demonstrate experimental control, allowing for ethical practice. Experimental control can be demonstrated by at least 3 demonstrations of the experimental effect at 3 different points. Baseline in tier 2 (participant 2) verifies the prediction of baseline in tier 1, thus a within as well as across series change is demonstrated. There can then be 3 demonstrations of the experimental effect as the intervention is introduced for each

participant (each tier). The use of this design means that the organisation is immediately at a lower risk of high staff turnover which will save on time and money resources.

Participants selected should be functionally similar so that the intervention effect is replicated therefore using all supervisors as participants is appropriate. They should however be functionally independent as they are individual people; thus, introduction of the intervention in one tier should not bring about change in other tiers, until it is introduced. However direct care workers are likely to be caring and nurturing and want the best for their clients. Dodevska & Vassos (2013) found through interview that those with intellectual disabilities who were care home residents valued staff who had good interpersonal skills. These included being caring, having resilience, providing emotional support and being kind among others. Therefore, when employing DCWs, these are likely traits that employers will look for.

Taking this into consideration, the participants in this study may want to share their experiences of the job-crafting intervention with other staff members, including the other participants in order for the service users to get the best care. Thus, researchers should ensure that the participants do not discuss the intervention with anyone else; however, this may have ethical implications. Although the service users are not the clients of the researchers, they still have the right to effective care and by withholding the intervention from other staff members, this may mean that the service users are not in receipt of the best care possible.

One possible issue with using a multiple-baseline across individuals design is that participants 2 and 3 are likely to be in baseline for a prolonged amount of time. Baseline assessments in this study will consist of completing a questionnaire to determine an intention to quit score. Over time this may become tiresome for the participants and they may answer in the same way each time and thus lack validity. However, it is important to measure every

month and not use a multiple probe design because it is unknown whether intention to quit score will change and if it does change the controlling variables are unknown, therefore it is necessary to keep measuring with the questionnaire. Additionally, the questionnaires are only given monthly which is not a very high frequency when considering the varied life events and job responsibilities the participants would have to complete in that time. Further to this, after the year intervention, 6-month follow ups will be given in order to ensure maintenance and generalisation of the skills learnt over time.

As before mentioned, DCWs who provide care for those with IDD are at risk of stress and exhaustion (Quilliam, Bigby & Douglas, 2018) due to high levels of demands placed on them (Sheehan et al., 2020). Therefore, a multiple-baseline across individuals design may not be completely appropriate for this population as it is very time-consuming. It may be more appropriate to conduct job-crafting for all staff at the same time to save on time resources. Kooij et al. (2017) conducted a job crafting towards strengths and interests intervention for groups of employees. It was found that job-crafting resulted in a positive indirect effect on person-job fit among older workers. Therefore, this suggests the same results may not be found for those who are younger, therefore this must be considered and conducting the intervention individually may be more appropriate.

The workshops that will be used are based on those used by Kuijpers et al (2020) therefore the intervention is valid and reliable as it was shown to work. Additionally, it was shown that job-crafting towards strengths was the only aspect positively associated with all 3 components of work engagement, thus the intervention should be superior to that used in the previous study. One consideration should be that it is not known whether all factors of the workshop are necessary to see any change in outcome. The combination of job-crafting towards strengths, interests and biggest achievements may be necessary for increasing work engagement and thus turnover.

The use of supervisors in running the workshops is a good method. Klaver et al (2020) found that supervisor social support was more important than that of co-workers to DCWs; therefore, the intervention may be more effective as Gray & Muramatsu (2013) found a direct association between supervisory support and low intentions to quit. In addition, by using the senior staff to complete the RBS for the individuals as opposed to friends and family as used by Kuijpers et al (2020), this may protect the individuals from developing burnout or exacerbating it. In a recent review, Ryan, Bergin & Wells (2021) it was stated that internationally excessive workplace demands have been shown to be related to higher levels of stress and burnout. By keeping the intervention components within the work environment this may protect against burnout as there are no excessive demands being placed on the individuals such as taking work home with them to their friends and families. However, it must be noted that the intervention may not work in the way it was intended as it is stated in the original RBS that family, friends, teachers and colleagues should be used. By using just one supervisory co-worker, this may impact the outcomes of the intervention.

In Kuijpers et al (2020) participants were given 3 weeks to accomplish their 3 goals; using this logic the current intervention includes one week to complete the one goal the participants have set for themselves. This is because the intervention focuses on job-crafting towards strengths only and not the other 2 components as used by Kuijpers et al (2020). However, it must be considered that one week may not be long enough; it may take 3 weeks for just one goal. Weekly review workshops have been included in this intervention which means that if they do not accomplish their goal within the week, they can carry on with it until they do.

This intervention includes weekly workshops over the course of a year which is around 9 times that of which was used by Kuijpers et al (2020). This may lead to more salient and longer-term outcomes such as a decrease in total staff turnover because of instruction

lasting longer. On the other hand, this could lead to prompt dependency and the DCWs taking not being able to implement these skills themselves without the workshops. There is a lack of literature to show the optimum amount of time a job-crafting intervention should last.

Turnover data will be collected in an AB, quasi-experimental design. This means full experimental analysis of the controlling effects of the intervention cannot be achieved. Any changes in staff turnover percentage can only be presumed to be a function of the intervention as only correlational relationships are possible, therefore reducing the internal validity. However this is used in conjunction with the multiple-baseline design making the research have increased experimental control. It would not be appropriate to use an experimental design for this element of the research as it would not be ethical and could cost the home time and money resources. In addition to this, turnover data is objective and can be collected without adding to the workload of the participants

Ethical Considerations

As an educational research study, this research must adhere to all of the British Educational Research Association (BERA) ethical guidelines for educational research (BERA, 2018). According to the BERA researchers must also be aware of the structural inequalities between supervisors, group leaders and other DCWs and be mindful that these inequalities in position will affect social relationships. Supervisors carrying out the intervention, must be trained to be aware of this social dynamic, so to not let it affect the provision of the intervention. Similarly, DCWs who work under the group leader participants should be made aware of the study and the purpose of the research, so to not be made to feel as if group leaders are getting more help than them because of their professional and social dominance, rather it is based on workload.

It is also stated in the Ethical Guidelines for Educational Research (2018) that those who may be indirectly affected by the research should also be considered. Researchers should consider that by keeping some of the group leaders in baseline for an extended amount of time they may be hindering treatment outcomes for service users. As detailed previously, burnout can result in lesser quality of outcomes for clients, therefore this could be regarded as unethical. Researchers should balance maximising the benefits and minimising any risks as well as obtain approval from the ethics board at Bangor University.

Behaviour analysts should work within the scope of the ethics code for behaviour analysts (BACB, 2021). According to section 5.05 Use of Intellectual Property, researchers should obtain permission to use materials that are trademarked, copyrighted or can be claimed as someone's intellectual property. The current study includes the use of the Michigan Organizational Assessment Questionnaire as well as the RBS. Therefore, researchers need to be knowledgeable about and comply with intellectual property laws concerning these materials. Rights to the questionnaire and rights to use the RBS will need to be obtained.

Section 6 of the ethics code (BACB, 2021) notes all responsibilities in research that behaviour analysts must abide by. They must conform with laws and regulations, receive approval by a formal research review committee, gain informed consent, uphold confidentiality. They must also ensure their competence, mitigate any conflict of interests, appropriately credit all contributors and not plagiarise. They must comply with all applicable standards for storing, transporting, retaining and destroying documentation and be accurate when using data.

Section 2 of the ethics code (BACB, 2021) also details the responsibilities in practice that behaviour analysts need to adhere to. This includes protecting confidential information;

the researchers must take steps to protect the confidentiality of the participants. This will include destroying paper versions of any information collected, including any demographic information, once it has been transferred to an electronic version. This electronic version will then be password locked, encrypted and destroyed after 10 years.

Development of Data Collection Tools

The use of turnover data is ideal because it is a historical permanent product that can be obtained and analysed without any interference with the participants. This means that workload is not added to in a way that it would have been if a data collection method such as self-report questionnaires or interviews were used. In addition to this it allows for objective historical baseline data to be collected prior to any introduction of the intervention methods and allows for maintenance and generalisation data to be collected in the future. Although some personal time is required of the DCWs to complete the homework tasks, this is a relatively small amount of time, and could be done whilst at work on shift because it takes such a short amount of time, if this is preferred by the participants. Turnover data can be measured objectively, thus this increases measurement validity

Data on intentions to quit combats the shortcomings of using turnover data. It can be taken more often meaning any intervention effects may be seen quicker as the data is being collected more often. As well as this using turnover data only allows for an AB design which is quasi-experimental design meaning that only correlation can be derived from results and there is low experimental control. This means that results may be subject to confounding variables and thus weak conclusions. Intentions to quit has been shown to be a precursor to turnover (Gray & Muramatsu., 2013) therefore it is a valid measure for the outcomes of this intervention. The questionnaire to determine intention to quit is an indirect measurement, thus may lack validity. However, the Michigan Organizational Assessment Questionnaire has

been previously used in research about intentions to quit in DCWs (Camman, Fichman Jenkins & Klesh, 1983, as cited in Gray & Muramatsu, 2013) thus reliability, accuracy and validity of the tool can be confirmed. It must be considered however that this tool is a self-report questionnaire, this means that results may not be accurate due to possible social desirability bias; therefore, participants should be assured their responses will be kept confidential and they should answer as truthfully as possible. This tool is short so should not take too long for participants to complete and thus not add too much extra work to the workload of the DCWs. This is important as it has been found that increased workload is related to increased burnout in DCWs (Ryan et al., 2021).

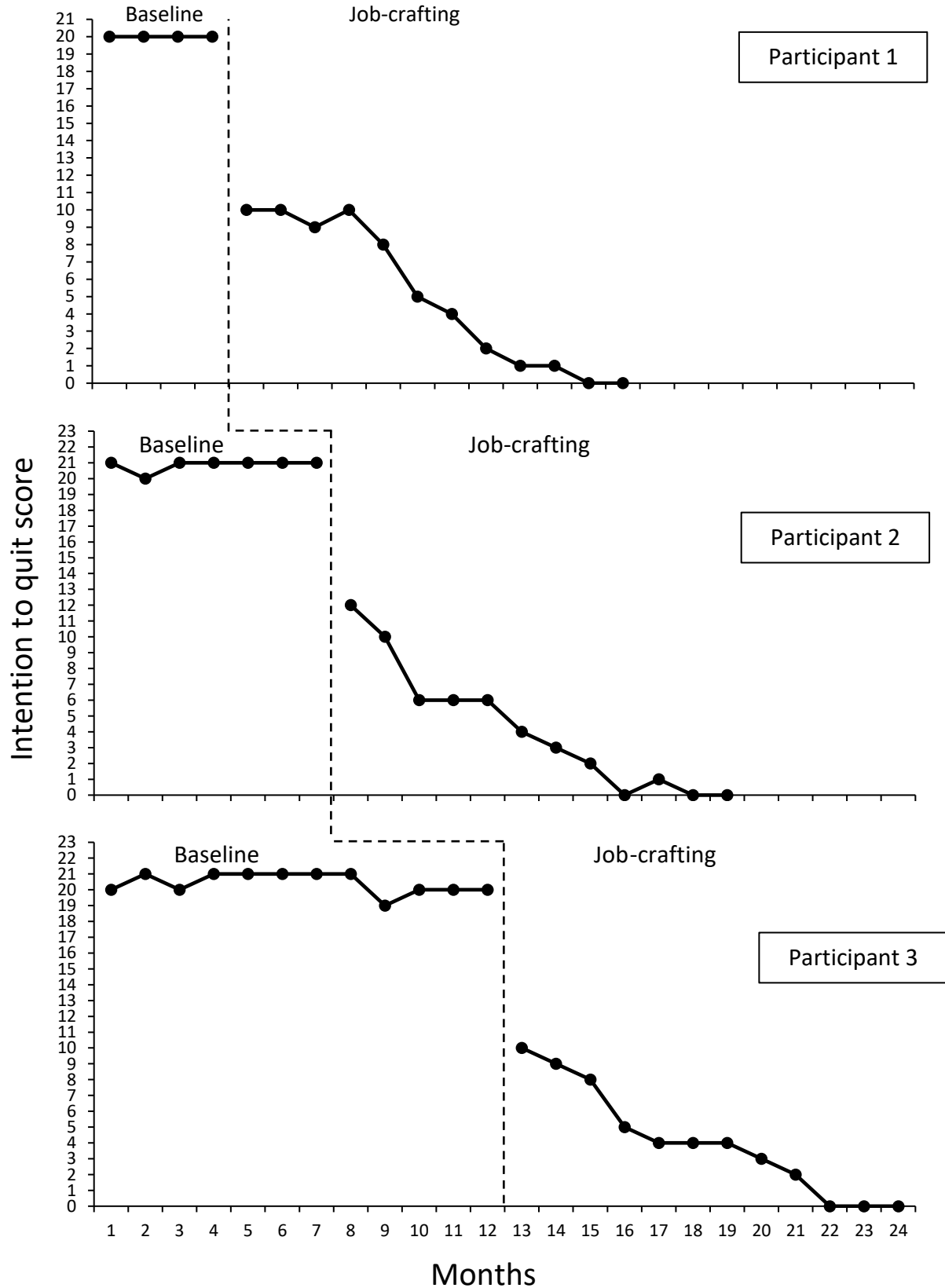
Proposed Data Analysis

All baseline phases showed a zero trend at a high level of intention to quit score (Figure 1). On introduction of the intervention in tier 1 there was an immediate change to a moderate level and the data shows a decreasing trend to a low level. This data demonstrates internal validity; there is acceptable stability across all 3 baseline phases as there is steady state responding before the introduction of the intervention for each participant. Additionally after the introduction of the intervention in each tier, an immediate change in intention to quit score is seen. This shows there is experimental control and thus the changes seen in this score are likely due to the job-crafting towards strengths intervention.

For participant 1 there is an immediate change in level from a high level of intention to quit score to a moderate level. The score then shows a decreasing trend with the mean intention to quit score level is low (5). For participant 2 there is an immediate change from a high level of intention to quit score to a moderate level on introduction of the intervention. The mean intention to quit score (4.17) is at a low level for the intervention phase. For participant 3 there is also an immediate level change from a high intention to quit score to a

Figure 1

Changes in Intention to Quit Score as a Function of a Job-Crafting towards Strengths Intervention

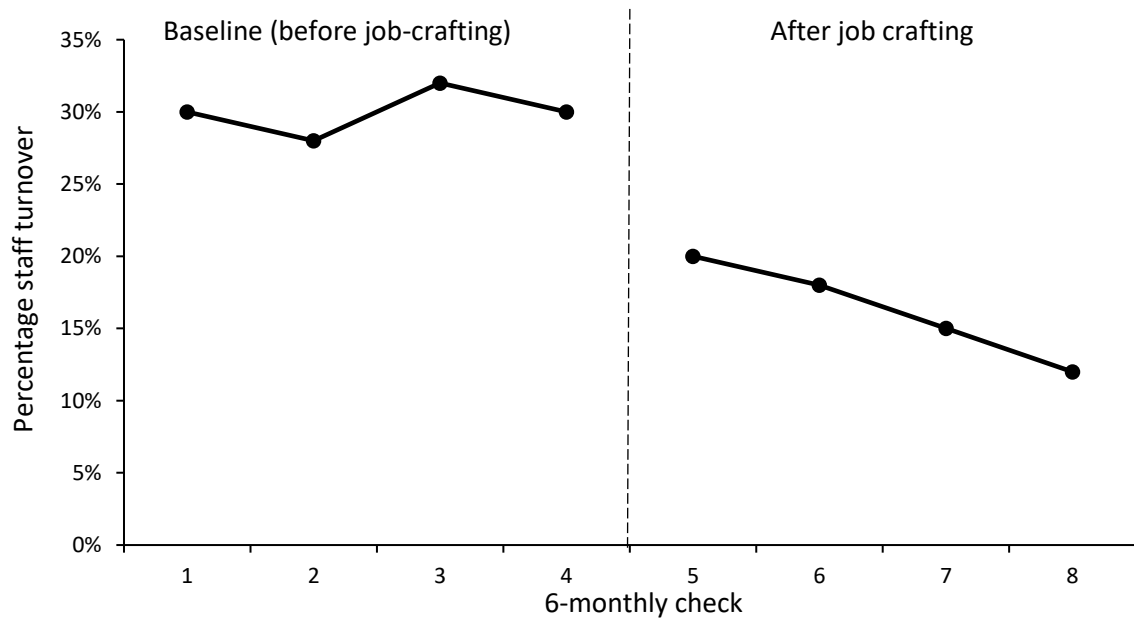


moderate level. The mean intention to quit score (4.08) is at a low level during the intervention phase. All participants ended the intervention phase with an intention to quit

score of 0, therefore I can be concluded that the intervention was effective in reducing intentions to quit among senior DCWs who work with those with IDD.

Figure 2

In the 2 years before the onset of the intervention baseline data showed a zero trend at *Change in Staff Turnover before and after a job-crafting intervention*



a high level (mean: 30%) (Figure 2). Six months following termination of the intervention staff turnover showed an immediate level change to a moderate level (mean: 16%). It also shows a decreasing trend with the last data point at a low level. Gray & Muramatsu (2013) showed that intentions to quit can be a precursor for staff turnover. These data show that this may be the case; 6 months after the termination of the job-crafting intervention percentage staff turnover decreased and shows a decreasing trend over time. The job-crafting intervention resulted in decreased intentions to quit, so it is logical to suggest that this therefore leads to reduced staff turnover. Additionally, the six monthly follow ups show a decreasing trend over time, suggesting that the intervention effects may be maintained over time. These results could be replicated in other homes across England as according to Skills for Care (2020), the average turnover rate in the adult social care sector and workforce was estimated to be 30.4% in 2019/20. This is reflective of the mean average turnover rate in this particular home at baseline, therefore the results may be replicated in other homes.

Conclusion

Taken together the intention to quit scores and staff turnover data provide some important information about how to increase staff retention in the direct care industry. It must be noted that intentions to quit are only correlated with percentage staff turnover, therefore further study is needed to establish a functional relation between the 2. A functional relation was found between job-crafting towards strengths and intentions to quit, and, as stated by Gray & Muramatsu (2013), intentions to quit can be a precursor for staff turnover. Therefore further study is needed to establish a functional relation between job-crafting towards strengths and staff turnover.

Further questions remain regarding whether results will be similar if the job-crafting workshops were conducted in group settings rather than individually. This would save on time, thus could result in better results (i.e., less intentions to quit and lower turnover data). Further study should be conducted to compare group to individual job-crafting towards strengths workshops. If the group workshops are as successful or more successful, then these should be used as this would take up less time, which in turn could contribute to reducing burnout factors as staff will have more time to do other job aspects. Equally, having group sessions could contribute to more burnout as it may not be possible to schedule a time where all staff members can be trained at the same time, due to their job responsibilities. Therefore, further study is needed to establish how best to conduct this intervention in real world settings.

Additionally, the current study would demonstrate how job-crafting towards strengths would work for DCWs working with adults with IDD. However, the intervention may not work for other populations such as DCWs who work with children with IDD, teachers, special needs teachers and any other professionals in different job careers unrelated to health

and social care. Thus, further study is also needed to establish whether this is a viable intervention for other workers in different fields. As well as these other groups, it also needs to be established whether the intervention would be effective for those with a lower workload. The current participants were senior staff, therefore further study is needed to establish whether the intervention will work in the same way for all DCWs, not just those in senior positions.

The outcomes of this research shows that the workshops can be effectively delivered by supervisors. However, it must be established whether senior staff can be trained to deliver the workshops in order to free up the time of the supervisors. Additionally, it may benefit the workforce if staff were able to complete the intervention themselves. This could be a better way to deliver the intervention if it resulted in the same outcomes as it would mean that staff can complete the tasks when it suits them, logistically they would not have to agree a time with another member of staff. Additionally, if something urgent came up they would be able to easily postpone the workshop. It must be noted that this would require some training of the staff and could result in poor adherence to the intervention, however further study is needed to confirm the outcomes. As well as this, Review workshops may not be necessary meaning that putting a time constraint on the goals could be unnecessary. If reviews were not a necessary part of the intervention, this would again save valuable time and thus may be more favourable for the care industry.

The mediating variables of the relationship between job-crafting towards strengths and intentions to quit are unknown. Burnout is often considered a consequence of chronic work-related stress as well as high absenteeism and turnover (Leoni et al., 2020) therefore if work-related stress is decreased by job-crafting towards strengths, it can be hypothesised that burnout may also decrease as a result of the intervention thus leading to reduced intentions to quit and lower staff turnover. Future studies may strive to establish the functional relations

between these variables and job-crafting towards strengths in order to understand the mediating variables related to staff turnover. Emotional exhaustion has been defined as the first phase of burnout (Maslach & Jackson, 1984), therefore if emotional exhaustion can be reduced by this intervention, it can be presumed that burnout will also decrease leading to lower intentions to quit and thus staff turnover. It needs to be established whether the intervention actually adds to workload as Kowalski et al. (2010) stated that to reduce emotional exhaustion, interventions must aim to reduce workload. Therefore, if the workshops add too much to workload, it may result in increased emotional exhaustion, thus burnout and increased intentions to quit as well as staff turnover; meaning further study is needed.

There are many consequences of stress and burnout, including those for service users with IDD whom the DCWs care for. Leoni et al (2020) reported lower levels of production as well as quality of direct support and interaction among DCWs working with those with IDD. This then often resulted in negative reactions and thus a higher risk of physical and mental abuse towards clients themselves. High turnover has also been found to result in poor continuity of care (Hatton, 1999) as well as lower client safety and reduced quality of care (Kowalski et al., 2010). Therefore, the intervention may lead to better continuity of care, higher quality care itself and increased safety for service users. However this is not addressed in the current study, therefore further research should address these variables to establish the outcomes on service users who arguably are the most important people in this set up.

Appendices

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