

# Turnover of IPS employment specialists: Rates and predictors

Daniil Butenko<sup>a,b,c,\*</sup>, Miles Rinaldi<sup>a,d</sup>, Beate Brinchmann<sup>a</sup>, Eoin Killackey<sup>f,g</sup>, Erik Johnsen<sup>h,i,j</sup>  
and Arnstein Mykletun<sup>a,b,e,k</sup>

<sup>a</sup>Centre for Work and Mental Health, Nordland Hospital Trust, Bodø, Norway

<sup>b</sup>Centre for Research and Education in Forensic Psychiatry, Haukeland University Hospital, Bergen, Norway

<sup>c</sup>The Department of Clinical Medicine, Faculty of Medicine, University of Bergen, Bergen, Norway

<sup>d</sup>South West London and St George's Mental Health NHS Trust, London, UK

<sup>e</sup>UiT The Arctic University of Norway, Tromsø, Norway

<sup>f</sup>Orygen, Parkville, VIC, Australia

<sup>g</sup>Centre for Youth Mental Health, University of Melbourne, Melbourne, VIC, Australia

<sup>h</sup>Division of Psychiatry, Haukeland University Hospital, Bergen, Norway

<sup>i</sup>NORMENT Centre of Excellence, Haukeland University Hospital, Bergen, Norway

<sup>j</sup>Department of Clinical Medicine, University of Bergen, Bergen, Norway

<sup>k</sup>Norwegian Institute of Public Health, Oslo, Norway

Received 26 January 2022

Revised 7 April 2022

Accepted 28 April 2022

Pre-press 20 June 2022

Published 15 July 2022

## Abstract.

**BACKGROUND:** There are anecdotal reports of high job turnover of Individual Placement and Support employment specialists. However, no studies have addressed this issue.

**OBJECTIVE:** To explore whether turnover rates among employment specialists are higher compared to public sector employees along with the correlates of turnover intentions.

**METHODS:** A repeated cross-sectional study collected data from 40 employment specialists in Norway using validated scales to measure job perceptions. Turnover intentions were the main outcome.

**RESULTS:** Turnover rate of employment specialists (45.0%) was significantly higher than the average turnover rate of other occupations in the public sector (27.1%) in the same geographical regions ( $\chi^2 = 6.5$ ,  $df = 1$ ,  $p = 0.01$ ). After adjusting for potential confounders, five factors remained significantly associated with turnover intentions in directions as expected: general job satisfaction ( $\beta = -0.33$ ,  $p < 0.05$ ), satisfaction with current work ( $\beta = -0.35$ ,  $p < 0.05$ ), satisfaction with supervision ( $\beta = -0.28$ ,  $p < 0.05$ ), work meaningfulness ( $\beta = -0.42$ ,  $p < 0.05$ ) and Negative emotionality personality trait ( $\beta = 0.58$ ,  $p < 0.05$ ).

**CONCLUSIONS:** Addressing turnover will positively impact on productivity and job satisfaction of employment specialists along with continuity of employment support for people with mental health conditions.

Keywords: Vocational rehabilitation, individual placement and support, employment specialist, healthcare workforce management, staff turnover

---

\*Address for correspondence: Daniil Butenko, MD., E-mail: daniil.butenko@helse-bergen.no, E-mail: Daniil.Butenko@nordlandssykehuset.no.; <https://orcid.org/0000-0002-8609-6984>

## 1. Introduction

Individual placement and support (IPS), a vocational rehabilitation program for people with severe mental illnesses, is in the early stage of implementation in Northern Norway (Moe et al., 2021). IPS has created a new type of occupation in mental healthcare – employment specialists. As such, the role has been scarcely studied, with the majority of the quantitative research concentrating on exploring competencies and characteristics of the employment specialists needed for effective IPS delivery (Corbiere et al., 2014; Teixeira et al., 2020; Whitley et al., 2010). Among these studies, only a few mentioned high turnover rates among employment specialists while reporting in-job contextual challenges (Bonfils et al., 2017; Lindstrom, 2016; Vukadin et al., 2021). However, to the best of our knowledge there have not been attempts to study turnover of employment specialists and the associated factors.

Turnover is a subject of concern, as for any organization, including IPS services that requires human capital to operate. Consequently, losing staff with developed skills, knowledge and expertise can undermine the productivity of the service (Maertz & Campion, 1998). The need to hire, train and supervise new staff, along with production losses increase associated costs for an organization with high turnover (Patterson et al., 2010; Waldman et al., 2004). Another matter of concern is turnover contagion. Evidence repetitively suggests that individuals are more prone to quitting in an environment where their colleagues have left or intend to do so (Felps et al., 2009; Rubenstein et al., 2018).

In an IPS context, losing staff would be especially problematic. Employment specialists receive training in the role during employment, including both a short course followed by on-the-job learning by shadowing experienced colleagues and their supervisors. This takes time and investment to compensate the loss in productivity following turnover, compared to an occupation where staff are already trained. Due to the lack or absence of an employment specialist, IPS clients ultimately stop receiving employment support until the position is filled by a new employment specialist. In addition to this, clients being on a waiting list in itself might result in poorer outcomes, such as decreased hope and motivation towards achieving their employment goals, and potentially increasing the chance of dropping out from the program (Mor Barak et al., 2001). Finally, the disruption of an established working alliance between a client and

an employment specialist is another consequence of the turnover process. This is undesired as working alliance has been shown to be positively associated with the main outcome of IPS – successful job acquisition (Corbiere et al., 2017).

Withdrawal cognition, defined as a conglomerate of “turnover intentions, thoughts of quitting, search intentions, and expected utility of withdrawal”, has been found to be the strongest predictor of turnover across all occupations (Rubenstein et al., 2018). Numerous other factors are also associated with turnover intentions and actual turnover among a variety of occupations. Specifically for social workers, the strongest predictors of turnover intentions are organizational and professional commitment, job satisfaction and burnout (Mor Barak et al., 2001). The strongest predictors of actual turnover are turnover intentions, job satisfaction, employment alternatives and burnout (Mor Barak et al., 2001). However, as each occupation possesses contextual procedural, cultural and financial differences it can be assumed that turnover predictors and intentions vary between jobs. Consequently, the aims of this study are:

- 1) To test the hypothesis that turnover rates are higher among IPS employment specialists compared to public sector employees in general.
- 2) To explore correlates to turnover intentions including aspects of job perceptions, personality and demographics.

## 2. Methods

### 2.1. Design and setting

This is a repeated cross-sectional study that utilized data collected via questionnaires in the period of 2019–2020. The survey of the IPS employment specialists took part in Northern Norway in three counties: Nordland, Troms and Finnmark. This study was conducted under IPSNOR – a naturalistic trial that evaluates the effectiveness of IPS implementation in Northern Norway.

### 2.2. Data collection instruments

We have used seven validated self-report questionnaires that were translated by the research team into Norwegian to assess fifteen chosen job perceptions related to the turnover process. The factors were

chosen based on the available meta-analyses results (Harrison et al., 2006; Rubenstein et al., 2018) and face validity – measured job perceptions had to be relevant for the employment specialist role. The choice of scales was driven by two factors: good psychometric properties; and questionnaire length to prevent response fatigue. All the scales along with permission to use them were obtained either from the authors or their official websites. To collect demographic data we have used self-developed open and closed questions.

### 2.2.1. Turnover intention scale (TIS-6)

TIS-6 is a reliable and validated 6-item scale with a 5-item Likert scale reply form. Theoretically it is based on the theory of planned behaviour (Ajzen, 1991). Its merit to assess turnover intentions and predict actual turnover was demonstrated by Bothma and Roodt (Bothma & Roodt, 2013). Their study showed that the scale has good internal consistency (TIS-6  $\alpha = 0.80$ ).

### 2.2.2. Job descriptive index (JDI) and job in general (JIG): 2009 revision

The JDI family of instruments was developed by Bowling Green State University. JIG is an 18 item scale with a 3-item Likert scale. It is a global job satisfaction scale, which measures general satisfaction with a job regardless of the type of occupation. JDI is a facet job satisfaction questionnaire, which consists of five subscales that assess satisfaction with coworkers, current work, salary, opportunities for promotion and supervision (Gillespie et al., 2016). Both JIG and JDI were demonstrated to have excellent internal consistency: JIG  $\alpha = 0.92$ , JDI Work  $\alpha = 0.90$ , JDI Pay  $\alpha = 0.88$ , JDI Promotion  $\alpha = 0.91$ , JDI Supervision  $\alpha = 0.92$ , JDI Co-workers  $\alpha = 0.92$  (Brodke et al., 2009a).

### 2.2.3. Trust in management (TIM): 2009 revision

TIM is a 12-item scale with a 3-item Likert scale reply form. The questionnaire belongs to the JDI family of scales and assesses subjective trustworthiness of management. Reliability of the scale was found to be excellent (TIM  $\alpha = 0.91$ ) (Brodke et al., 2009b).

### 2.2.4. Stress in general (SIG): 2009 revision

SIG is a JDI family 8-item scale with a 3-item Likert scale reply form. This self-report questionnaire assesses job-related stress. Psychometric properties of the scale, including convergent and discriminant

validity of the scale are presented in the study by Yankelevich et al. (Yankelevich et al., 2012).

### 2.2.5. Work and meaning inventory (WAMI)

WAMI is a 10-item scale with a 5-item Likert scale reply form. It is a theory driven questionnaire that measures three key facets of work meaningfulness: positive work meaning, meaning-making through work and, the effort to contribute to greater societal good. Summarized scores of these three facets demonstrate overall individual meaningfulness of work. Internal consistency of the scale was shown to be excellent (WAMI  $\alpha = 0.93$ ) (Steger et al., 2012).

### 2.2.6. Big five inventory-2 (BFI-2)

BFI-2 is a 60-item scale that hierarchically assesses Big 5 personality profile simultaneously at the facet and domain levels. Good reliability for BFI-2 domains ( $\alpha = 0.87$ ) was shown by Soto C.J. and John O.P. (Soto & John, 2017).

### 2.2.7. Translation of the questionnaires

Big Five Inventory-2 had an official Norwegian translation provided by the author of the scale. The remaining questionnaires were translated and back translated according to the guidelines (Wild et al., 2005).

## 2.3. Sample

We obtained written consents from 40 IPS employment specialists, encompassing 88.9% of the total population of IPS employment specialists in the study area at the time of the data collection.

## 2.4. Data collection

We conducted four data collections using Survey Monkey web-platform over the 2019–2020 (24 months) time period. Demographic data and BFI-2 personality profiles were collected at T0 in September 2019. Data for JDI and JIG, TIM, SIG, WAMI and TIS-6 was collected in February 2020 (T1), July 2020 (T2), October 2020 (T3). At each time point, two follow-up reminders were sent to participants over a two week period.

## 2.5. Statistics

We used a Chi-square test to analyze the difference in proportions of employment specialists who left their jobs (hereafter know as, staff who quit) in

Table 1  
Sample characteristics

Number of participants		<i>n</i> = 40
Age (mean, SD, range)		Mean = 41.7; SD = 8.2; 26–58
Gender (% women)		62.5%
Experience in the role <sup>2</sup> (mean, SD, range)		Mean = 9.0 months; SD <sup>1</sup> = 8.8; range 0–32
Previous work experience ( <i>n</i> , %)		
Health sector		<i>n</i> = 9 (22.5%)
Labor and welfare administration (NAV)		<i>n</i> = 10 (25.0%)
Both health sector and Labor and welfare administration (NAV)		<i>n</i> = 8 (20.0%)
Other		<i>n</i> = 8 (20.0%)
Missing data		<i>n</i> = 5 (12.5%)

<sup>1</sup>SD = Standard Deviation; <sup>2</sup>Experience in the role was calculated as a difference between the first data collection (T0) and the day survey participants started working as IPS employment specialists.

Table 2

Comparison of the turnover rates between IPS employment specialists and all occupations within the public sector on the municipal level in Nordland, Troms and Finnmark counties

	Still working	Quit	Test statistics
	<i>n</i> , %, CI for %	<i>n</i> , %, CI for %	$\chi^2$ , <i>df</i> <sup>1</sup> , <i>p</i> -value
IPS employment specialists in Nordland, Troms and Finnmark counties	22 55% 39.6%–70.4%	18 45% 29.6%–60.4%	$\chi^2 = 6.5$ , <i>df</i> = 1, <i>p</i> = 0.01
All occupations in the public sector, municipality level in Nordland, Troms and Finnmark counties <sup>2</sup>	40098 72.9% 72.5%–73.2%	14924 27.1% 26.8%–27.5%	

<sup>1</sup>*df* = degrees of freedom. <sup>2</sup>The reference data was obtained from the official website of the municipal sector's interest organization of Norway (ks.no, 2021).

our sample and in the reference data. For comparison we used publicly available aggregated registry data of employees of all occupations in the public sector at the municipality level. The reference data covered the same geographical area – Nordland, Troms and Finnmark counties in Northern Norway (ks.no, 2021).

To explore whether job perceptions and personality domains predict turnover intentions we used linear regression analysis. For the analysis we used the last observed job perceptions – i.e. if a person participated in T1 and T2 data collections, we used the last data from T2. A decision to use last observed job perceptions was made in order to include highest possible amount of observations in the analysis. We standardized all variables and used z-scores in the linear models. Turnover intentions measured via TIS-6 were used as an outcome variable. First, we made individual bi-variable linear regression models of a predictor versus the outcome variable. Afterwards, we adjusted initial bi-variable linear regression models for Negative emotionality personality trait from BFI-2 scale and gender. The adjustments for confounders were made as we found strong significant individual associations between Negative emotionality, gender and turnover intentions.

SPSS version 27 was used to conduct the analysis.

### 3. Results

Demographic characteristics of the sample (*N* = 40) are provided in Table 1. From the initial sample of 40 IPS employment specialists, 18 (45%) quit during the 24 month time period. Using a chi-square test we found the proportion of IPS employment specialists who quit their positions during the time period significantly differed from the proportion of individuals who quit their jobs in the public sector in the same area in the same time period (Table 2).

Linear regression analysis was used to estimate individual effects of demographic and personality factors on turnover intentions as a standardized scale score dependent variable. Female gender ( $\beta = 0.46$ ; CI: 0.17–0.76) and Negative Emotionality trait ( $\beta = 0.67$ ; CI: 0.43–0.91) had statistically significant individual effects on turnover intentions (Table 3). After adjusting the bivariate demographic factors models for Negative Emotionality, the female gender effect on turnover intentions decreased and became statistically non-significant ( $\beta = 0.20$ ; CI: –0.07–0.46). After adjusting the bivariate personality factors models for gender, the effect of Negative emotionality on turnover intentions decreased

Table 3  
Individual linear regression models showing unadjusted effects of demographic and personality factors on turnover intentions (outcome a), turnover intentions adjusted for Negative emotionality (outcome b), and turnover intentions adjusted for gender (outcome c)

	Turnover intentions (outcome a)	Turnover intentions adjusted for Negative Emotionality (outcome b)	Turnover intentions adjusted for gender (outcome c)
	$\beta$ 95% CI	$\beta$ 95% CI	$\beta$ 95% CI
Age (model 1)	<b>-0.17</b> -0.51 – 0.18	<b>-0.05</b> -0.31 – 0.20	–
Gender (model 2)	<b>0.46*</b> 0.17 – 0.76	<b>0.20</b> -0.07 – 0.46	–
BFI-2 <sup>1</sup> Extraversion (model 3)	<b>-0.11</b> -0.45 – 0.23	–	<b>-0.03</b> -0.34 – 0.28
BFI-2 Agreeableness (model 4)	<b>-0.01</b> -0.37 – 0.34	–	<b>-0.10</b> -0.41 – 0.22
BFI-2 Conscientiousness (model 5)	<b>-0.10</b> -0.45 – 0.24	–	<b>-0.20</b> -0.51 – 0.11
BFI-2 Negative Emotionality (model 6)	<b>0.67*</b> 0.43 – 0.91	–	<b>0.58*</b> 0.31 – 0.85
BFI-2 Open-Mindedness (model 7)	<b>0.27</b> -0.1 – 0.64	–	<b>0.25</b> -0.07 – 0.58

<sup>1</sup>BFI-2 = Big-Five Inventory 2. <sup>2</sup>\*symbol marks statistically significant findings ( $p < 0.05$ ).

but remained statistically significant ( $\beta = 0.58$ ; CI: 0.31–0.85). Age, Extraversion, Agreeableness, Conscientiousness and Open-Mindedness were not found to have a significant effect on turnover intentions.

Linear regression models were used to estimate the individual effects of job perceptions on turnover intentions as a standardized scale score dependent variable. We found significant individual effects among the following job perception factors (Table 4): General job satisfaction ( $\beta = -0.61$ ; CI: -0.87 – -0.36), Work meaningfulness ( $\beta = -0.60$ ; CI: -0.89 – -0.31), Satisfaction with supervision ( $\beta = -0.58$ ; CI: -0.84 – -0.31), Satisfaction with current work ( $\beta = -0.56$ ; CI: -0.83 – -0.29), Work related stress ( $\beta = 0.56$ ; CI: 0.29–0.83), Satisfaction with opportunities for promotion ( $\beta = -0.36$ ; CI: -0.67 – -0.05), Trust in management in the Labor and welfare administration ( $\beta = -0.49$ ; CI: -0.81 – -0.17). Satisfaction with salary and satisfaction with coworkers in the health sector and Labor and welfare administration did not have significant effect on turnover intentions.

After including Negative emotionality as a confounder, four factors had smaller effects on turnover intentions while maintaining their statistical significance: General job satisfaction ( $\beta = -0.35$ ; CI: -0.62 – -0.08), Work meaningfulness ( $\beta = -0.43$ ; CI: -0.65 – -0.21), Satisfaction with supervision

( $\beta = -0.31$ ; CI: -0.58 – -0.05) and, Satisfaction with current work ( $\beta = -0.37$ ; CI: -0.59 – -0.15). Three other factors had smaller effects on turnover intentions and became statistically non-significant: Work related stress ( $\beta = 0.26$ ; CI: -0.04–0.57), Satisfaction with opportunities for promotion ( $\beta = -0.20$ ; CI: -0.44–0.04) and, Trust in management in the Labor and welfare administration ( $\beta = -0.23$ ; CI: -0.5–0.05).

Adding gender as a second confounder, did not substantially change the model estimates compared to only adjusting for Negative emotionality.

## 4. Discussion

### 4.1. Summary of findings

This is the first study we are aware of that investigates turnover of IPS employment specialists. We collected survey data from 40 respondents that constituted 88.9% of the total population of IPS employment specialists in the study region at the time of the data collection. We found that 45% of IPS employment specialists from our sample quit their positions during the study period. The turnover rate of IPS employment specialists in our sample was sig-

Table 4

Individual linear regression models showing unadjusted effects of job perceptions on turnover intentions (outcome a), turnover intentions adjusted for Negative emotionality (outcome b), and turnover intentions adjusted for Negative emotionality and gender (outcome c)

	Turnover intentions (outcome a)	Turnover intentions adjusted for Negative Emotionality (outcome b)	Turnover intentions adjusted for Negative Emotionality and gender (outcome c)
	$\beta$ 95% CI	$\beta$ 95% CI	$\beta$ 95% CI
General job satisfaction (model 1)	<b>-0.61*</b> -0.87 – -0.36	<b>-0.35*</b> -0.62 – -0.08	<b>-0.33*</b> -0.59 – -0.06
Work meaningfulness (model 2)	<b>-0.60*</b> -0.89 – -0.31	<b>-0.43*</b> -0.65 – -0.21	<b>-0.42*</b> -0.63 – -0.20
Satisfaction with supervision (model 3)	<b>-0.58*</b> -0.84 – -0.31	<b>-0.31*</b> -0.58 – -0.05	<b>-0.28*</b> -0.55 – -0.02
Satisfaction with current work (model 4)	<b>-0.56*</b> -0.83 – -0.29	<b>-0.37*</b> -0.59 – -0.15	<b>-0.35*</b> -0.57 – -0.12
Work related stress (model 5)	<b>0.56*</b> 0.29 – 0.83	<b>0.26</b> -0.04 – 0.57	<b>0.24</b> -0.07 – 0.54
Satisfaction with opportunities for promotion (model 6)	<b>-0.36*</b> -0.67 – -0.05	<b>-0.20</b> -0.44 – 0.04	<b>-0.18</b> -0.42 – 0.06
Trust in management in the Labor and welfare administration (model 7)	<b>-0.49*</b> -0.81 – -0.17	<b>-0.23</b> -0.50 – 0.05	<b>-0.19</b> -0.46 – 0.09
Satisfaction with salary (model 8)	<b>-0.15</b> -0.49 – 0.19	<b>0.03</b> -0.22 – 0.28	<b>0.04</b> -0.21 – 0.29
Satisfaction with co-workers in health sector (model 9)	<b>-0.11</b> -0.45 – 0.23	<b>-0.06</b> -0.30 – 0.18	<b>-0.05</b> -0.29 – 0.19
Satisfaction with co-workers in the Labor and welfare administration (model 10)	<b>-0.16</b> -0.50 – 0.17	<b>0.01</b> -0.24 – 0.26	<b>0.03</b> -0.22 – 0.28

<sup>1</sup>\*symbol marks statistically significant findings ( $p < 0.05$ ).

nificantly higher than in the sample of public sector employees on the municipal level in the same geographical region and time period.

We found that Negative emotionality and female gender were statistically significantly positively associated with turnover intentions. We also established that general job satisfaction, satisfaction with current work and satisfaction with supervision, along with work meaningfulness maintained strong negative effects on turnover intentions after adjusting for Negative emotionality and gender. Effects of Work related stress, Satisfaction with opportunities for promotion and Trust in management in the Labor and welfare administration lost statistical significance after adjusting for Negative emotionality. Finally, satisfaction with coworkers and salary were not found to have significant effects of turnover intentions of the respondents in our sample.

#### 4.2. Interpretation of findings

Contrary to the jobs in the comparison group, the employment specialist occupation was in the early implementation stage of IPS. According to previous IPS research, implementation is a challenging

period. Particularly, it is characterized by integration of the employment specialists into the healthcare services which takes time, lack of supervision and guidance, unwelcoming attitudes of clinicians, and big caseloads (Bonfils et al., 2017; Boyce et al., 2008; Hillborg et al., 2021; Moe et al., 2021). Thus, similar to previous studies showing high turnover rates (>35%) of staff during the implementation phase of other healthcare interventions (Gill et al., 2002; Woltmann et al., 2008), it is plausible to infer that the high turnover of employment specialists found in our study is induced by the aforementioned work environment problems that can accompany the implementation phase.

Additionally, contrary to the other countries who have implemented IPS, most employment specialists in Norway are employed by the Labor and welfare administration, not by health services. A key principle of the IPS approach is that employment specialists are integrated into the clinical teams, while with an employment specialist being employed by another employer this can create additional operational, bureaucratic and legal challenges for employment specialists to navigate (Moe et al., 2021). The associated difficulties and frustrations caused by these

challenges might be another factor contributing to high turnover rates of employment specialists in our sample.

In general, personality traits variation had little effect on turnover intentions except for one trait – Negative emotionality. This trait “contrasts negative emotionality with emotional stability, contentment, and frustration tolerance” (John, 2021). The effects of Negative emotionality on turnover intentions indicate that people who score high on Negative emotionality trait are more vulnerable to develop quitting ideations and in general perceive their job negatively. We found after adjusting for Negative emotionality this decreased the effects of all variables on turnover intentions and the disappearance of the significance of the effects of job perceptions in the models 5, 6 and 7 enabling the assumption that job perceptions have mediational role between Negative emotionality trait and turnover intentions. Female employment specialists, especially those who score high on Negative emotionality, also seem to have higher turnover intentions. This interpretation of our results corresponds with other studies that found turnover intentions to be higher among women and people who score high on Negative emotionality. For example Miller & Wheeler found a positive correlation between female gender and turnover intentions ( $r=0.15, p<0.01$ ) (Miller & Wheeler, 1992), while Schul & Wren, using the MANOVA found that female salesperson had higher intentions to quit when compared to men ( $F=3.01, p<0.05$ ) (Schul & Wren, 1992). As to Negative emotionality, a meta-analysis by Saldago J.F. showed that Negative emotionality, called in the study Emotional stability was a strong predictor of lack of turnover ( $\rho=0.35$ ) (Salgado, 2002). Finally, Hirtz in his study shows that Negative emotionality had a significant positive impact on turnover intentions, mediated through job satisfaction ( $\beta=0.89, 95\% \text{ CI } [0.129-1.06]$ ) (Hirtz, 2017).

The relationships between job perceptions and turnover intentions found in our study correspond with existing studies on the predictors of turnover (Kim & Kao, 2014; Rubenstein et al., 2018). Our findings allow us to depict a tentative image of the process of employment specialists’ turnover – under the pressure of a challenging work environment, IPS staff intentions to quit increase as they find their work less meaningful, and become less satisfied with their job in general, specifically with their current work and supervision. Over time, turnover intentions result in actual turnover for some individuals. Such explanation of the turnover process of IPS employment

specialists corresponds with the existing theoretical framework of turnover (Lee et al., 1999).

#### 4.3. Strengths and limitations

This is the first study of the turnover process of IPS employment specialists to estimate turnover rate and investigate predictors of turnover intentions. By inviting all eligible IPS employment specialists from a well-defined catchment area to participate in our study we recruited a representative sample of 40 respondents, which constituted 88.9% of the total population of IPS employment specialists. We have also used comparison turnover rates reference data for public sector jobs in the same geographical region for the same time period. A further strength of this study is we have used validated scales to collect data.

This study also had a number of limitations. First of all, despite it being a representative sample, the overall sample size is relatively small in statistical terms, increasing likelihood of a type two error in presented results. Further research with larger samples from different geographical regions is warranted to check reproducibility of findings of our study on turnover of IPS employment specialists. Secondly, our data collection was undertaken during the COVID-19 pandemic. Local and state governmental social distancing instructions might have affected both the turnover rate, survey response rate and job perceptions of the employment specialists. Thus, further studies should investigate the impact of COVID-19 on the turnover of IPS employment specialists and their job perceptions.

#### 4.4. Practical implications

Our findings warrant a discussion about the organizational contexts for the IPS employment specialist role. Improvements to the perceived work environment of IPS employment specialists and the importance of understanding and facilitating higher job satisfaction and meaningfulness in their work may contribute to a decrease in their turnover intentions. In particular, emphasis may be made on improving both the supervision and management of the employment specialists in their day-to-day work. Considering findings related to gender and personality, the role of management is to recognize diversity of employment specialists and provide equal support to all members of their staff.

Line managers are pivotal in shaping employees' experience of work and bringing people management policies to life. It is important for the Labor and welfare administration and mental health services to consider how best to support and enable line managers to effectively manage and supervise IPS employment specialists to reduce the high rates of turnover found in this study. Failure to do this is likely to result in the continuing higher turnover rates compared to other public sector employees. Ultimately though, it is clients who are negatively impacted by high turnover rates by not receiving the employment support they want and so reducing the likelihood of them achieving their employment goals. This impact comes at a cost not only to the individual client and their life but to society as a whole.

## 5. Conclusion

Negative job experiences and the turnover of IPS employment specialists may be related to temporary problems related to the early phase of implementing IPS. However, it is likely that structural and organizational factors, partly related to the dual-sectorial organization of IPS in Norway, may reduce job satisfaction and work meaningfulness, while increasing turnover intentions, beyond the implementation phase.

While the consequences of IPS employment specialist turnover should be further investigated, the observed higher rates of turnover clearly have a negative effect on productivity, program-related effectiveness and costs that ultimately impact on clients and their right to work and the achievement of their employment aspirations.

## Acknowledgments

The authors express their gratitude to all IPS staff in Northern Norway. They also want to express their gratitude to several individuals who provided their help and expertise:

Unni Kolstad, Centre for Work and Mental Health, Nordland Hospital Trust, Bodø, Norway – for reaching out non-respondent survey participants in order to increase response rates.

Marit Borg, Faculty of Health and Social Sciences, University of South-Eastern Norway, Norway – for providing expertise in the translation of the questionnaire.

## Author contributions

DB: Methodology, Data collection, Statistical analysis, Visualization, Writing – original draft, Writing – review & editing. MR: Design, Methodology, Supervision, Writing – review & editing. BB: Design, Funding acquisition, Writing – review & editing. EK: Design, Methodology, Supervision, Writing – review & editing. EJ: Writing – review & editing. AM: Design, Funding acquisition, Methodology, Supervision, Writing – review & editing, PI of the project.

## Availability of data and materials

Data is not available due to the GDPR regulations and conditions of ethics approval.

## Conflict of interest

The authors report no financial or non-financial competing interest related to this article.

## Consent for publication

Not applicable.

## Ethical approval

This study was approved by The Regional Committee for Medical and Health Research Ethics region North, Norway (#123711). A data protection officer from Nordland Hospital HF according to the GDPR regulation approved the data protection precautions. The case was assigned #2019/5454.

## Funding

This study was funded by research grants from the Research Council of Norway: #273665 and #280589.

## Informed consent

All participation was based on informed consent.

## Methods guidelines

The authors followed the Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) guidelines for reporting observational studies.

## References

- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179-211. [https://doi.org/https://doi.org/10.1016/0749-5978\(91\)90020-T](https://doi.org/https://doi.org/10.1016/0749-5978(91)90020-T)
- Bonfils, I. S., Hansen, H., Dalum, H. S., & Eplöv, L. F. (2017). Implementation of the individual placement and support approach – facilitators and barriers. *Scandinavian Journal of Disability Research*, 19(4), 318-333. <https://doi.org/10.1080/15017419.2016.1222306>
- Bothma, C. F. C., & Roodt, G. (2013). The validation of the turnover intention scale. *SA Journal of Human Resource Management*, 11(1). <https://doi.org/https://doi.org/10.4102/sajhrm.v11i1.507>
- Boyce, M., Secker, J., Floyd, M., Grove, B., Johnson, R., Schneider, J., & Slade, J. (2008). Factors influencing the delivery of evidence-based supported employment in England. *Psychiatric Rehabilitation Journal*, 31(4), 360-366. <https://doi.org/10.2975/31.4.2008.360.366>
- Brodke, M. R. H., Sliter, M. T., Balzer, W. K., Gillespie, J. Z., Gillespie, M. A., Gopalkrishnan, P., Lake, C. J., Oyer, B., Withrow, S., & Yankelevich, M. (2009a). *The Job Descriptive Index and Job in General: 2009 Revision Quick Reference Guide [Brochure]*. Bowling Green State University.
- Brodke, M. R. H., Sliter, M. T., Balzer, W. K., Gillespie, J. Z., Gillespie, M. A., Gopalkrishnan, P., Lake, C. J., Oyer, B., Withrow, S., & Yankelevich, M. (2009b). *Trust In Management 2009 Revision: Quick Reference Guide [Brochure]*. Bowling Green State University.
- Corbiere, M., Brouwers, E., Lanctot, N., & van Weeghel, J. (2014). Employment specialist competencies for supported employment programs. *Journal of Occupational Rehabilitation*, 24(3), 484-497. <https://doi.org/10.1007/s10926-013-9482-5>
- Corbiere, M., Lecomte, T., Reinharz, D., Kirsh, B., Goering, P., Menear, M., Berbiche, D., Genest, K., & Goldner, E. M. (2017). Predictors of acquisition of competitive employment for people enrolled in supported employment programs. *The Journal of Nervous and Mental Disease*, 205(4), 275-282. <https://doi.org/10.1097/NMD.0000000000000612>
- Felps, W., Mitchell, T., Hekman, D., Lee, T., Holtom, B., & Cook, W. (2009). Turnover contagion: How coworkers' job embeddedness and job search behaviors influence quitting. *Academy of Management Journal*, 52, 545-561. <https://doi.org/10.5465/AMJ.2009.41331075>
- Gill, S., Greenberg, M., & Vazquez, A. (2002). Changes in the service delivery model and home visitors' job satisfaction and turnover in an early head start program. *Infant Mental Health Journal*, 23, 182-196. <https://doi.org/10.1002/imhj.10011>
- Gillespie, M. A., Balzer, W. K., Brodke, M. H., Garza, M., Gerbec, E. N., Gillespie, J. Z., Gopalkrishnan, P., Lengyel, J. S., Sliter, K. A., Sliter, M. T., Withrow, S. A., & Yugo, J. E. (2016). Normative measurement of job satisfaction in the US. *Journal of Managerial Psychology*, 31(2), 516-536. <https://doi.org/10.1108/JMP-07-2014-0223>
- Harrison, D. A., Newman, D. A., & Roth, P. L. (2006). How important are job attitudes? Meta-analytic comparisons of integrative behavioral outcomes and time sequences. *Academy of Management Journal*, 49(2), 305-325. <https://doi.org/10.5465/amj.2006.20786077>
- Hillborg, H., Bergmark, M., & Bejerholm, U. (2021). Implementation of individual placement and support in a first-episode psychosis unit: A new way of working. *Social Policy & Administration*, 55(1), 51-64. <https://doi.org/https://doi.org/10.1111/spol.12611>
- Hirtz, R. J. (2017). *A Longitudinal Examination of Personality at Work: Examining the Relationship Between Variability in Personality and Job Performance and Turnover Intentions* [Ph.D., University of Missouri - Saint Louis]. <https://irl.umsl.edu/dissertation/680>
- John, O. P. (2021). History, Measurement, and Conceptual Elaboration of the Big-Five Trait Taxonomy. In O. P. John & R. W. Robins (Eds.), *Handbook of Personality: Theory and Research*, 4th ed., Fourth edition ed., Guilford Press, p. 42.
- Kim, H., & Kao, D. (2014). A meta-analysis of turnover intention predictors among U.S. child welfare workers. *Children and Youth Services Review*, 47, 214-223. <https://doi.org/https://doi.org/10.1016/j.childyouth.2014.09.015>
- ks.no. (2021). *Turnover in Norwegian municipalities*. <https://www.ks.no/fagomrader/statistikk-og-analyse/turnover/publisert-turnoverstatistikk/>
- Lee, T. W., Mitchell, T. R., Holtom, B. C., McDaniel, L. S., & Hill, J. W. (1999). The unfolding model of voluntary turnover: A replication and extension. *The Academy of Management Journal*, 42(4), 450-462. <https://doi.org/10.2307/257015>
- Lindstrom, E. (2016). Program improves using fidelity scale [Twice-yearly IPS supported employment newsletter]. *Employment works!*(Winter 2016), 4. <https://ipsworks.org/wp-content/uploads/2017/08/employment-works-winter-2016-2-5-16.pdf>
- Maertz, C., & Campion, M. A. (1998). 25 Years of Voluntary Turnover Research: A Review and Critique. In C. L. Cooper & I. T. Robertson (Eds.), *International Review of Industrial and Organisational Psychology*, Wiley, Vol. 13.
- Miller, J. G., & Wheeler, K. G. (1992). Unraveling the mysteries of gender differences in intentions to leave the organization. *Journal of Organizational Behavior*, 13(5), 465-478. <https://doi.org/https://doi.org/10.1002/job.4030130504>
- Moe, C., Brinchmann, B., Rasmussen, L., Brandseth, O. L., McDavid, D., Killackey, E., Rinaldi, M., Borg, M., & Mykletun, A. (2021). Implementing individual placement and support (IPS): The experiences of employment specialists in the early implementation phase of IPS in Northern Norway. The IPSNOR study. *BMC Psychiatry*, 21(1), 632. <https://doi.org/10.1186/s12888-021-03644-x>
- Mor Barak, M., Nissly, J., & Levin, A. (2001). Antecedents to retention and turnover among child welfare, social work, and other human service employees: What can we learn from past research? A review and meta-analysis. *Social Service Review*, 75(4), 625-661. <https://doi.org/10.1086/323166>
- Patterson, P. D., Jones, C. B., Hubble, M. W., Carr, M., Weaver, M. D., Engberg, J., & Castle, N. (2010). The longitudinal study of turnover and the cost of turnover in emergency medical services. *Prehospital Emergency Care: Official Journal*

- of the National Association of EMS Physicians and the National Association of State EMS Directors, 14(2), 209-221. <https://doi.org/10.3109/10903120903564514>
- Rubenstein, A. L., Eberly, M. B., Lee, T. W., & Mitchell, T. R. (2018). Surveying the forest: A meta-analysis, moderator investigation, and future-oriented discussion of the antecedents of voluntary employee turnover. *Personnel Psychology, 71*(1), 23-65. <https://doi.org/https://doi.org/10.1111/peps.12226>
- Salgado, J. F. (2002, 2002/03/01). The big five personality dimensions and counterproductive behaviors. *International Journal of Selection and Assessment, 10*(1-2), 117-125. <https://doi.org/https://doi.org/10.1111/1468-2389.00198>
- Schul, P. L., & Wren, B. M. (1992). The emerging role of women in industrial selling: A decade of change. *Journal of Marketing, 56*(3), 38-54. <https://doi.org/10.1177/002224299205600303>
- Soto, C. J., & John, O. P. (2017). The next Big Five Inventory (BFI-2): Developing and assessing a hierarchical model with 15 facets to enhance bandwidth, fidelity, and predictive power. *Journal of Personality and Social Psychology, 113*(1), 117-143. <https://doi.org/10.1037/pspp0000096>
- Steger, M. F., Dik, B. J., & Duffy, R. D. (2012). Measuring meaningful work: The work and meaning inventory (WAMI). *Journal of Career Assessment, 20*(3), 322-337. <https://doi.org/10.1177/1069072711436160>
- Teixeira, C., Rogers, E. S., Russinova, Z., & Lord, E. M. (2020). Defining employment specialist competencies: Results of a participatory research study. *Community Mental Health Journal, 56*(3), 440-447. <https://doi.org/10.1007/s10597-019-00497-3>
- Vukadin, M., Schaafsma, F. G., Michon, H. W. C., de Maaker-Berkhof, M., & Anema, J. R. (2021). Experiences with Individual Placement and Support and employment – a qualitative study among clients and employment specialists. *BMC Psychiatry, 21*(1), 181. <https://doi.org/10.1186/s12888-021-03178-2>
- Waldman, J. D., Kelly, F., Aurora, S., & Smith, H. L. (2004). The shocking cost of turnover in health care. *Health Care Management Review, 29*(1). <https://doi.org/DOI:10.1097/00004010-200401000-00002>
- Whitley, R., Kostick, K. M., & Bush, P. W. (2010). Desirable characteristics and competencies of supported employment specialists: An empirically-grounded framework. *Administration and Policy in Mental Health, 37*(6), 509-519. <https://doi.org/10.1007/s10488-010-0297-9>
- Wild, D., Grove, A., Martin, M., Eremenco, S., McElroy, S., Verjee-Lorenz, A., & Erikson, P. (2005). Principles of good practice for the translation and cultural adaptation process for patient-reported outcomes (PRO) measures: Report of the ISPOR task force for translation and cultural adaptation. *Value in Health, 8*(2), 94-104. <https://doi.org/10.1111/j.1524-4733.2005.04054.x>
- Woltmann, E. M., Whitley, R., McHugo, G. J., Brunette, M., Torrey, W. C., Coots, L., Lynde, D., & Drake, R. E. (2008). The role of staff turnover in the implementation of evidence-based practices in mental health care. *Psychiatric Services, 59*(7), 732-737. <https://doi.org/10.1176/ps.2008.59.7.732>
- Yankelevich, M., Broadfoot, A., Gillespie, J. Z., Gillespie, M. A., & Guidroz, A. (2012). General job stress: A unidimensional measure and its non-linear relations with outcome variables. *Stress and Health, 28*(2), 137-148. <https://doi.org/10.1002/smi.1413>