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## Profiles of Professional Wellbeing and Turnover Intentions Among Australian Early Childhood Educators

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and Laura McFarland 

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### ABSTRACT

*Research Findings:* To explore distinct professional-wellbeing subgroups and variations in turnover intentions, we examined the factor structure of the Early Childhood Professional Wellbeing Questionnaire (McMullen et al., 2020), which was completed online by 368 Australian early childhood educators. Based on educators' scores on the Belonging and Connection, Impact Evaluation and Safety factors, we identified five professional-wellbeing subgroups who varied in job satisfaction, consideration of resigning, and intention to leave the field. Subgroup differences suggest that a decreased sense of safety from high to average as well as a below-average sense of belonging, connection and safety contribute to turnover intentions. Also, educators with low professional wellbeing have a poor sense of belonging and connection, a negative view of their professional impact and weak job satisfaction. *Practice or Policy:* Further studies exploring early childhood educator wellbeing subgroup differences in psychological health and attitudes to teaching and learning, the impact of external factors including professional roles and leadership support and broader systemic influences, as well as variation in the effects of wellbeing interventions are needed. Such research will provide a useful framework for developing policies and practices that address the complex, multifaceted nature of educators' wellbeing and help combat threats to their wellbeing.

The wellbeing of professionals in the field of Early Childhood Education and Care (ECEC) is vital to young children, their families and society, as well as the lives of educators themselves. In this paper, we use the term, “educator” inclusively to refer to professionals with varying qualifications working in ECEC. Wellbeing is a multidimensional construct with physical, social and psychological facets. For ECEC educators, professional wellbeing involves a sense of work-related enjoyment, engagement, accomplishment and meaning in the context of safe and supportive environments, relationships, communities and structures. The role of an ECEC educator encompasses many potential threats to professional wellbeing including high physical and emotional demands, long working hours and low remuneration and status (Eadie et al., 2022; Murray et al., 2022). The field is characterized by work-related stress, emotional exhaustion and concerns over workload and staffing (Farewell et al., 2023) linked to difficulties attracting and retaining well-qualified educators (Irvine et al., 2016; Pascoe & Brennan, 2017). However, despite the urgency of the need, understanding and measuring the professional wellbeing of different ECEC educators remains a challenge. Part of the problem is that wellbeing is a dynamic, multifaceted construct involving a complex interplay of “individual, relational, work – environmental, and socio-cultural-political aspects and contexts” (p. 12, Cumming & Wong, 2019). Therefore, ECEC researchers need to grapple with a range of potential markers of physical,

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psychological, and emotional health among educators while trying to measure the influence of external factors such as the supports available to staff, the systemic burdens they face, and the demands of their workplace and society. In addition to difficulties in developing valid instruments for measuring key aspects of wellbeing, ECEC researchers also face the possibility of wellbeing differences among educators that cannot be captured by traditional variable-centered analytic approaches.

Nonetheless, a growing recognition of the importance of sustained, responsive and stimulating educator-child interactions for ECEC program quality and children's development (OECD, 2019; Slot, 2018; Torii et al., 2017) underscores the need to address the definitional and measurement challenges in ECEC educator wellbeing research. Indeed, educator-child interactions are fundamental to high-quality programs (Burchinal et al., 2016; Pianta et al., 2016; Tayler et al., 2016) and such interactions depend on healthy educator wellbeing (Corr et al., 2015; Jena-Crottet, 2017; King et al., 2016; Smith & Lawrence, 2019). Because high-quality ECEC programs lead to learning and developmental gains, especially for children experiencing disadvantage (Campbell et al., 2014; Duncan & Magnuson, 2013; Goldfeld et al., 2016; Melhuish et al., 2015), it is vital that educators have the physical, emotional and mental capacity to provide the kinds of interactions that underpin these gains (Kim & Choi, 2018; A. Roberts et al., 2016). The link between the wellbeing of educators and the quality of their interactions with children is well established. For example, educators with high wellbeing are better equipped to respond to the needs of different children and support their confidence and engagement (Buettner et al., 2016; Cassidy et al., 2017; Castle et al., 2016). Evidence also suggests that enhancing educators' wellbeing through practicing mindfulness leads to higher quality educator-child interactions (Jennings, 2015; Jennings et al., 2017; Seo & Yuh, 2022). Depression, stress, emotional exhaustion and burnout among educators are correlated with a reduction in high-quality interactions and emotionally responsive teaching (Jeon et al., 2014; Kim & Choi, 2018). Emotional exhaustion in educators is also associated with a decrease in pre-literacy activities and interactions such as story reading, singing with children and philosophical discussions (Trauernicht et al., 2023).

In keeping with research indicating that educators' interactions with children are related to their wellbeing, ECEC professionals' ratings on the Early Childhood Professional Wellbeing Questionnaire (ECPW-Q), a recently developed scale (McCormick et al., 2022; McMullen et al., 2020), predict the reported level of closeness/conflict in their relationships with children (Eadie et al., 2021). The ECPW-Q is a promising instrument in which items were designed to address nine senses of professional wellbeing based on Maslow's hierarchy of needs (i.e., comfort, security, affinity, self respect, communication, engagement, contribution, efficacy and agency.) In a study of 1076 ECEC professionals in the USA, McCormick and colleagues identified three factors underlying ECPW-Q wellbeing ratings: Community Belonging, Safety and Security, and Professional Identity (McCormick et al., 2022). These factors correspond somewhat to the three factors underlying the ECPW-Q scores in a smaller study of 281 caregivers/teachers and administrators of child-care programs in the USA (McMullen et al., 2020).

Insofar as the three ECPW-Q factors identified by McCormick et al. (2022) apply across ECEC contexts, examining educators' patterns of scores on the three factors is a good starting point for exploring the complex, multifaceted construct of wellbeing in ECEC. This is because the Community Belonging, Safety and Security, and Professional Identity factors point to key elements in educators' professional wellbeing for which differences among educators are likely to have far-reaching implications in ECEC. The meaningfulness of the Community Belonging factor is supported by recent research indicating that for ECEC educators, connections with other professionals are vital for avoiding burnout (Ng et al., 2023; Stein et al., 2022), and that a sense of belonging, characterized by strong personal relationships with colleagues is crucial to wellbeing (Eadie et al., 2022; Jones et al., 2019). The importance of the Safety and Security factor is in keeping with reports that educator wellbeing was negatively impacted by threats to physical, financial and emotional safety during the COVID-19 pandemic (Hanno et al., 2022; Logan et al., 2021). In addition, the potential significance of the Professional Identity factor for ECEC

educator wellbeing is underscored by research pointing to the centrality of professional identity for ECEC educators (Irvine et al., 2016) as well as suggesting that professional recognition and status are key to wellbeing (Murray et al., 2022) and that helping educators focus on meaning in their work is protective against burnout (Lavy, 2022).

The three factors underlying the ECPW-Q responses of ECEC professionals in the USA were associated with their roles, qualifications and experience (McCormick et al., 2022). They were also inversely related to turnover intentions (McCormick et al., 2022). The latter finding is worthy of further investigation because high turnover represents a loss of skill and experience in ECEC across nations, necessitating costly recruitment and training processes and disrupting key professional networks. High turnover is also detrimental to crucial educator-child relationships and has adverse implications for children's learning and socioemotional outcomes (Cassidy et al., 2017; National Scientific Council on the Developing Child, 2015). It is particularly concerning that turnover rates are higher in those early childhood settings that are under greatest stress, including centers attended by children living in disadvantaged circumstances (Allen et al., 2018; Stormont & Young-Walker, 2017; Wells, 2017).

Despite substantial support for the links between the ECPW-Q professional wellbeing factors and turnover intentions, the exact nature of these connections requires further investigation. Studies suggest that the work-related stress of ECEC staff impacts turnover (Phillips et al., 2016; Totenhagen et al., 2016) and that educators' sense of calling to work in ECEC and having career roles, which could be viewed as aspects of professional identity, are associated with their intention to stay in the field (Herman et al., 2023; Thorpe et al., 2020). The links between lower wellbeing and higher risk of turnover found in educators' ECPW-Q responses are also supported by significant relations between educators' positive views of their work environment and job retention (Bryant et al., 2023; Thorpe et al., 2020), as well as between depressive symptoms and ECEC teacher turnover (Bryant et al., 2023). In support of data from the USA (McCormick et al., 2022), the ECPW-Q professional wellbeing scores of 232 Australian educators surveyed during the COVID-19 pandemic were related to their turnover intentions (Eadie et al., 2021). However, although ECPW-Q wellbeing ratings were associated with turnover intentions in the Australian sample, it is unclear whether the ECPW-Q responses of Australian educators have a similar factor structure to those in the USA. More generally, the importance of particular combinations of wellbeing factors for individual educators and the ways in which wellbeing profiles contribute to turnover intentions in ECEC are currently unknown.

An advantage of further research into the Community Belonging, Safety and Security, and Professional Identity factors found to underlie educators' responses to the ECPW-Q in the USA is that such research could form the basis for a person-centered analysis of key aspects of ECEC educator wellbeing. A. M. Roberts et al. (2023) make a compelling argument that while yielding useful findings about the importance of particular variables such as stress or depression, current ECEC wellbeing research is limited by its reliance on variable-centered analytic models (e.g., correlations and regressions). This is because these models assume that the population of ECEC educators is homogenous in the ways that predictors operate on outcomes. In contrast, a useful way to acknowledge the complexity of educator wellbeing is to explore the possibility of distinct subgroups. Identifying meaningful wellbeing differences among educators helps us understand the diversity of educators' experiences and explore nuances in the relations between wellbeing and other variables. For example, A. M. Roberts et al. (2023) used survey data on various health, psychological, and financial indicators to identify two wellbeing subgroups. They found that ECEC educators who were not qualified as teachers, worked as assistant teachers, received less pay and reported having had more adverse childhood experiences were overrepresented in the less positive wellbeing group. A similar approach, which allows for the possibility of ECEC educator subgroups with qualitatively different wellbeing profiles, may highlight associations between specific combinations of professional wellbeing factors and educators' turnover intentions.

We designed this research to address three main questions:

- (1) What is the factor structure of the ECPW-Q responses of Australian ECEC educators and how does it relate to the factor structure of ECPW-Q scores of ECEC professionals in the USA?
- (2) Can the ECPW-Q factors be used to identify qualitatively different subgroups of ECEC educators with distinct professional wellbeing profiles?
- (3) Do the turnover intentions of ECEC educators differ according to their patterns of wellbeing and what specific combinations of professional wellbeing factors are associated with variation in turnover intentions?

## Method

### *Participants*

In Australia, ECEC educators provide non-compulsory education and care for children under formal school age. Compulsory school attendance is from age 6 years. Australia has a mixed-market model in which the federal government oversees funding for center-based day care and state governments are responsible for preschool kindergarten programs taught by registered early childhood teachers. Australian educators are employed within three main types of ECEC services: long day care (or center-based day care); family day care; and preschool. At long day care services, for-profit or not-for-profit organizations provide full-day care and education to children below school age. Family day care is provided in educators' homes and is organized by licensing schemes. Australian preschool is not compulsory and is usually available to children in the year or two before they commence full-time schooling. In 2021, over 216,000 staff were employed in ECEC in Australia. The average age was 32, 92% were female, 85% had an ECEC qualification and 12% had a bachelor's degree (The Australian Government Department of Education, 2023). In Australia, pay varies according to ECEC educators' qualifications, experiences and location but pre-primary teachers entering the field have a bachelor's degree, an above average statutory salary and a below average number of teaching hours compared to the OECD average (OECD, 2016).

The current study utilizes data from two larger projects (Eadie et al., 2021, 2023) We excluded data for twenty educators from the first project who did not complete all ECPW-Q items of interest in the current analysis. Therefore, we used data from 258 educators who occupied a range of roles in Australian, mainly Victorian, early childhood services from the first project. These roles included lead teacher/educator, assistant teacher/educator, educational leader, center director, and family day care educator/owner. The most recent coronavirus pandemic lockdowns in Australia ended in October 2021 and most public health restrictions had been lifted by the end of 2021. These data from the first project were collected during July, August and September in 2020 and during May and June in 2021 when a series of rolling lockdowns were in place and 154 participants (60%) from the first project reported that their job role had changed since the outbreak of the pandemic. The most common explanations of these changes were reduced contact hours with children, working remotely, reduced overall working hours for casual workers and enforced annual leave.

A subsequent group of educators was recruited as part of the second project and surveyed from May to November, 2022 (Eadie et al., 2023). A cluster randomized sampling design based on a random selection of Victorian local government areas was used, followed by the recruitment of teachers from randomly selected three- and four-year-old preschool services within those areas (For further details, please see Eadie et al., 2023). Eight teachers of three- and four-year-old preschool classes within selected services began the ECPW-Q but did not complete all items of interest and were excluded. In total, ECPW-Q ratings from 368 educators were used in the current study, 258 from the first project and 110 from the second.

All educators participated in the study via a link to an online survey. Prior to completing the survey, they read information about the study and gave consent. Participation was voluntary and educators were informed that their information would be kept confidential and securely stored. Ethical approvals were obtained for the first and second projects from which participants for this study were drawn.

## **Measure**

Participants completed the ECPW-Q together with other survey items outside the focus of this study. The ECPW-Q was designed to measure ECEC educators' professional wellbeing and risk of turnover. The professional wellbeing framework is underpinned by sociocultural theory, with three items based on each of the nine "senses" that capture Maslow's hierarchy of needs: agency, efficacy, engagement, contribution, affinity, self-respect, communication, security, and comfort (McMullen et al., 2020). For example, self-respect was operationalized by exploring the extent to which educators reported that they: (a) had ideas worth sharing, (b) were respected in the workplace and (c) were accepted for who they were. An overall score for professional wellbeing is the mean rating on the 27 wellbeing items, with higher scores indicating higher professional wellbeing.

We chose the ECPW-Q to measure educator wellbeing due to its strong theoretical underpinnings and multidimensional approach (McCormick et al., 2022). After administering the ECPW-Q to a large sample, McCormick and colleagues identified three factors with numerous senses of educator wellbeing related to each (i.e., the senses of friendship, collegiality, community, acceptance, self-respect, acknowledgment, ease of conversation, having verbal and non-verbal communications understood and decisions respected for the Community Belonging factor; physical comfort, emotional contentment, health, safety, control, and anticipation of tasks for Safety and Security; and efficacy, contribution, accomplishment, engagement, and intellectual challenge for Professional Identity.)

In the ECPW-Q, wellbeing items are randomly interspersed with three items designed to measure turnover intentions. Turnover items address: (a) satisfaction with current position, (b) intention to seek another position within ECEC, and (c) intention to leave ECEC for another field. Therefore, the ECPW-Q consists of 30 items in total. Educators rate each item on a Likert scale (1 = Never, 2 = Rarely, 3 = Sometimes, 4 = Often, and 5 = Almost Always). To address response-set bias, the order of presentation was determined using a random number generator and 13 items are phrased in the negative then reverse coded (McMullen et al., 2020).

## **Analytic Plan**

Initially, we employed an exploratory factor analysis to investigate Australian ECEC educators' responses to the ECPW-Q wellbeing items and examine whether the structure of their responses supported the three-factor solution found for ECEC professionals in the USA (McCormick et al., 2022). We used exploratory rather than confirmatory factor analysis because our goal was to find the most plausible factor structure for our sample and a confirmatory factor analytic model that fitted our data would not necessarily be the best fitting model (Orcan, 2018). We did not assume that the factor structure underlying the ECPW-Q scores of Head Start professionals in the US, of whom only a minority were teachers (McCormick et al., 2022), would provide the best fit. Indeed, there were some differences in the three underlying factors identified in the two US studies of ECEC professionals' ECPW-Q scores (McCormick et al., 2022; McMullen et al., 2020).

We planned to use the factors we identified as a basis for exploring the possibility of different subgroups of professional wellbeing among ECEC educators using latent profile analyses. Employing factor analysis to aggregate items like survey ratings before conducting latent profile analyses is an accepted approach because factors better approximate continuous indicators and using factor scores reduces the number of parameters to be estimated and aids interpretability (Bauer et al., 2022). We

deemed latent profile analyses appropriate for the present sample of 368 ECEC educators because a sample size of 300–1000 is considered suitable for latent profile analyses (Nylund-Gibson & Choi, 2018). Finally, we performed a series of Wilcoxon rank-sum tests on educators' ratings of the three turnover items to explore the associations between different patterns of professional wellbeing and turnover intentions.

## Results

### *Professional Wellbeing Factors*

We conducted an exploratory factor analysis to investigate the structure of Australian ECEC educators' ECPW-Q scores. Two educators were excluded from the factor analysis because they missed an ECPW-Q item but were then included in subsequent analyses after we dropped the items they had omitted. The mean ECPW-Q wellbeing rating of Australian ECEC educators in our sample ( $M = 3.9$ ,  $SD = 0.5$ ) was similar to that of ECEC professionals in the USA ( $M = 3.9$ ,  $SD = 0.5$ , McCormick et al., 2022). Moreover, an examination of the scree plot after a principal components analysis suggested that, like ECEC professionals from the USA, a three-factor solution provided the best fit for the professional wellbeing ratings of educators in our study. This decision was supported by a parallel analysis and a minimum average partial correlation procedure (Lim & Jahng, 2019; Watkins, 2022).

Eigenvalues were 8.88 for Factor 1, 1.33 for Factor 2 and 1 for Factor 3 which accounted for 33%, 5% and 4% of the variance, respectively. Thus, our three-factor solution accounted for a similar percentage of the variance in Australian ECEC educators' ECPW-Q ratings (42%) as the three-factor solution did for ECEC professionals in the USA (44%, McCormick et al., 2022). After an oblique promax rotation with Kaiser normalization, eigenvalues were 8.37 for Factor 1, which accounted for 31% of the variance; 5.82 for Factor 2, which accounted for 22% of the variance; and 5.52 for Factor 3, which accounted for 20% of the variance (We performed an oblique promax rotation because the ECPW-Q factors were hypothesized to be correlated, McCormick et al., 2022.).

We used a criterion of .4 in absolute value and eliminated three wellbeing items with low factor loadings. Table 1 shows that fourteen items reflecting educators' sense of *Belonging and Connection* in ECEC defined Factor 1, with loadings ranging from .44 to .85 ( $\alpha = .91$ , *McDonald's Omega* [ $\omega$ ] = .91.) Interestingly, this factor included nine of the ten items that loaded onto the Community Belonging Factor of ECEC professionals in the USA (McCormick et al., 2022). Factor 2 was defined by five items relating to educators' *Impact Evaluation* (i.e., their assessment of the effects of their ECEC work on themselves and others) with loadings ranging from .40 to .74,  $\alpha = .69$ ,  $\omega = .71$ .) Four of these items were among the five that loaded onto McCormick and colleagues' Professional Identity factor. Five items reflecting educators' sense of *Safety* in ECEC defined Factor 3, with loadings ranging from .49 to .73 ( $\alpha = .72$ ,  $\omega = .72$ .) This factor included five of the six items that loaded onto McCormick and colleagues' Safety and Security factor.

In summary, the three factors underlying the professional wellbeing ratings of educators in this study corresponded to those put forward by McCormick and colleagues, suggesting that the factor structure of ECPW-Q responses of Australian ECEC educators is similar to that of ECEC professionals in the USA.

### *Wellbeing Profiles*

In order to identify different patterns of professional wellbeing, we conducted latent profile analyses of ECEC educators' responses to the three factors underlying their wellbeing ratings on the ECPW-Q using maximum likelihood estimation (STATA 17.0, StataCorp, 2021). We expected this analysis to help us identify subgroups with distinct wellbeing profiles and provide a basis for examining how professional wellbeing is related to turnover intentions. ECPW-Q scores reflecting educators' sense of belonging and connection in ECEC, impact evaluation of their professional role and sense of safety in

**Table 1.** Factor loadings for belonging & connection, impact evaluation and safety from a factor analysis of ECPW-Q professional wellbeing items.

ECPW-Q Item	Factor 1	Factor 2	Factor 3
<b>Factor 1: Belonging and Connection</b>			
9. My nonverbal communications are understood	<b>.85</b>	-.06	-.24
14. I'm accepted for who I am	<b>.84</b>	.01	-.13
15. People at work are friendly to me.	<b>.74</b>	-.18	.06
21. What I say is understood	<b>.74</b>	.01	-.02
8. I count my colleagues among my friends.	<b>.67</b>	-.04	-.06
2. Free to practice according to my professional beliefs	<b>.65</b>	.07	.01
11. Others don't question my decisions	<b>.64</b>	-.30	.13
22. I feel I belong to a community.	<b>.59</b>	.23	.03
28. Back/forth communication is easy	<b>.55</b>	-.22	.29
29. I feel respected in the childcare setting.	<b>.52</b>	.15	.22
23. I participate in important decisions	<b>.48</b>	.40	-.05
27. I don't worry about being fired.	<b>.48</b>	-.13	.14
26. I'm trusted to take on important tasks	<b>.46</b>	.32	-.08
1. Emotional climate puts me at ease	<b>.44</b>	-.02	.29
<b>Factor 2: Impact Evaluation</b>			
16. My work challenges me to think	-.07	<b>.74</b>	-.11
10. I'm proud of the contributions I make	.10	<b>.67</b>	.00
4. I find my work interesting	-.22	<b>.62</b>	.22
19. I make a difference in the lives of children	.04	<b>.59</b>	-.01
30. I think about things I've done well and not so well	-.21	<b>.40</b>	-.01
<b>Factor 3: Safety</b>			
20. My health isn't at risk in the setting	-.18	-.08	<b>.73</b>
18. I don't dread the tasks that I face each day	-.13	.13	<b>.58</b>
25. I feel physically comfortable at work	.06	.04	<b>.52</b>
3. I feel problems are under my control	.23	-.02	<b>.50</b>
12. I feel physically safe in the childcare setting	.13	.01	<b>.49</b>

The extraction method was principal axis factoring with an oblique rotation (Promax with Kaiser Normalization). Items are abbreviated versions of those on ECPW-Q and stated in a positive direction. Only items loading above .40 are shown.

ECEC were negatively skewed so they were squared and converted to  $z$  scores, and one outlier, an educator with the lowest possible score on belonging and connection, was excluded (as recommended by Sinha et al., 2021).

We fitted latent profile models with one to six classes incrementally and decided on the most appropriate number of profiles based on interpretability, class size (profiles of over  $n = 25$ ), and the lowest Akaike and Bayesian information criterion (AIC and BIC). However, the BIC and AIC were not in agreement so we selected the five-class model that had the lowest AIC listed in Table 2 and for which different patterns of responses to wellbeing factors were clear and informative. Our sample size of 367 also led us to favor the AIC over the BIC (cf. Sinha et al., 2021). The high entropy criterion in Table 2 supports the quality of the five-class model, given that an entropy of greater than 0.8 is regarded as "good" separation (Weller et al., 2020). Table 3 also indicates that all groups in the five-class model had average latent profile posterior probabilities (AvPP) of above .7, except the High-Belonging-and-Impact group, the smallest class ( $n = 31$ ), which fell just below the cutoff at .65 (AvPP

**Table 2.** Models from latent profile analysis of professional wellbeing factors.

No. of Classes	AIC	BIC	Log Likelihood	Entropy
1	3132.92	3156.35	-1560.46	
2	2928.72	2967.78	-1454.36	.927
3	2890.81	2945.48	-1431.40	.922
4	2876.80	2947.09	-1420.40	.950
<b>5</b>	<b>2874.79</b>	<b>2960.71</b>	<b>-1415.39</b>	<b>.952</b>
6	2879.82	2981.36	-1413.91	.949

Maximum Likelihood Estimation was applied to educator's  $z$  scores on Belonging and Connection, Evaluation of Impact and Safety factors.

**Table 3.** Marginal means (with *SEs*) of *z* scores on wellbeing factors and the average posterior probability of profile membership as a function of professional wellbeing profile.

Wellbeing Profile	Belonging & Connection		Evaluation of Impact		Safety		AvPP	<i>n</i>
Low WB	-1.53	(0.10)	-1.13	(0.16)	-0.97	(0.12)	.86	49
Low Belonging & Safety	-0.56	(0.09)	-0.12	(0.11)	-0.54	(0.09)	.83	121
Moderate WB	0.33	(0.09)	0.06	(0.12)	0.48	(0.14)	.76	108
High Belonging & Impact	0.96	(0.18)	0.65	(0.23)	-0.17	(0.26)	.65	31
Thriving	1.31	(0.08)	0.76	(0.13)	1.21	(0.15)	.83	58

values of greater than .7 represent a desirable level of accuracy in the classification of individuals to different profiles, Nagin, 2005).

From this model, we identified five subgroups of ECEC educators with different profiles of professional wellbeing, as set out in Table 3. For ease of interpretation, we refer to them with descriptive labels. *Thriving* educators were characterized by a high sense of belonging and safety in their profession and evaluated their impact positively. The *High-Belonging-and-Impact* group had a high sense of belonging and impact in ECEC but only moderate safety ratings. The *Moderate-Wellbeing* group had average professional wellbeing ratings for all three factors. The *Low-Safety-and-Belonging* group had a low sense of safety and belonging in ECEC but made a moderate evaluation of their professional impact. *Low-Wellbeing* educators had low scores across all three professional wellbeing factors.

As participants recruited as part of the first project completed the ECPW-Q during a series of strict, rolling coronavirus pandemic lockdowns (from mid 2020 to mid 2021) and the other participants took the ECPW-Q more than six months after the lockdowns were over, we carried out a multinomial logistic regression to examine whether or not experiencing concurrent lockdowns was related to educators' professional wellbeing profiles. In order to isolate the effect of taking the survey at the time of lockdowns and control for other differences, we only included educators from the first project ( $n = 75$ ) whose roles matched those from the second project ( $n = 110$ ) in the analysis. Participants in the second project were all preschool teachers. The scores of these two groups of preschool teachers on the three ECPW-Q factors and three turnover items are summarized in Appendix A.

The model that took into account whether educators responded to the ECPW-Q during or after lockdowns was a significant improvement over the null model that did not include lockdown-related effects, indicating that taking the ECPW-Q during lockdowns was associated with preschool teachers' wellbeing profile membership,  $\chi^2(4, N = 184) = 13.78$ , pseudo  $R^2 = .03$ ,  $p = .008$ . Table 4 shows that

**Table 4.** Multinomial logistic regression analysis of the effect of taking the ECPW-Q during rolling lockdowns on the wellbeing profiles of preschool teachers.

Effect	<i>n</i>	% Post lockdown <sup>a</sup>	RRR <sup>b</sup>	<i>SE</i>	<i>z</i>	95% CI		<i>p</i>
						<i>LL</i>	<i>UL</i>	
Low WB	24	62						
Lockdown			2.50	1.55	1.48	0.74	8.43	.14
Baseline (Thriving)			0.60	0.20	-1.56	0.32	1.14	.12
Low Belonging & Safety	59	42						
Lockdown			5.67	2.98	3.30	2.02	15.87	.001
Baseline (Thriving)			1.00	0.28	0.00	0.57	1.74	1.00
Moderate WB	57	63						
Lockdown			2.43	1.29	1.67	0.86	6.88	.09
Baseline (Thriving)			1.44	0.37	1.40	0.86	2.40	.16
High Belonging & Impact	13	62						
Lockdown			2.60	1.90	1.31	0.62	10.87	.19
Baseline (Thriving)			0.32	0.13	-2.81	0.14	0.71	.005

<sup>a</sup>Percentage of preschool teachers with a given profile that took the ECPW-Q post lockdowns.

<sup>b</sup>Risk ratio relative to the Thriving profile ( $n = 31$ , 81% post lockdown preschool teachers).

preschool teachers surveyed during lockdowns were over five times more likely than their peers to have a Low-Safety-and-Belonging rather than a Thriving profile. The greater tendency for preschool teachers surveyed during lockdowns to be more likely to have a Moderate-Wellbeing rather than Thriving profile was not significant. Indeed, completing the ECPW-Q during lockdowns was not associated with a significantly higher likelihood of being in any of the other subgroups as compared to the Thriving group, even the Low-Wellbeing group. This suggests that rolling lockdowns taking place at the time of the survey and educators' associated concerns were detrimental to their sense of safety and belonging in ECEC but not their broader professional wellbeing including their evaluations of their professional impact.

### Wellbeing Profiles and Turnover Intentions

To assess whether educators' turnover intentions varied as a function of their wellbeing profiles, we analyzed their ratings of the three turnover items in the ECPW-Q (job satisfaction, intention to resign and intention to leave ECEC). Educators' turnover responses were not normally distributed so we carried out four Wilcoxon rank-sum tests with a significance level of  $p < .01$  on each of the three turnover intention items. For the first comparison, we split our sample and tested for turnover intention differences between ECEC educators with the three lower professional wellbeing profiles and those with the two higher wellbeing profiles. (We grouped the Moderate-Wellbeing profile with the two lower scoring profiles because this group had comparable impact scores to the Low-Belonging-and-Safety profile and did not score above average on any factor.) Then, we explored turnover intention differences among the lower and higher wellbeing groups by comparing the Low-Wellbeing with the Low-Belonging-and-Safety group, the Low-Belonging-and-Safety with the Moderate group, and the High-Belonging-and-Impact with the Thriving group.

Table 5 shows that educators with the two higher wellbeing profiles were most satisfied with their jobs,  $z = 6.92$ ,  $p < .001$ . Among the lower wellbeing groups, Low-Wellbeing educators were less satisfied with their jobs than Low-Safety-and-Belonging educators,  $z = 4.08$ ,  $p < .001$  indicating that a drop in the three wellbeing factors, even among educators with an already low sense of safety and belonging, was related to poorer job satisfaction. Low-Safety-and-Belonging educators were also less satisfied with their jobs than Moderate-Wellbeing educators,  $z = 3.67$ ,  $p < .001$ , suggesting that a lowered sense of safety and belonging was associated with job dissatisfaction despite moderate evaluations of professional impact. In addition, High-Belonging-and-Impact educators were less satisfied with their jobs than Thriving educators,  $z = 2.56$ ,  $p = .01$ , indicating that the relations between professional wellbeing and turnover intentions are not confined to educators with lower wellbeing. A high rather than average sense of safety was associated with greater job satisfaction.

Table 5 also indicates that educators with lower wellbeing profiles reported thinking about moving to another ECEC job more often than those with higher wellbeing,  $z = 4.64$ ,  $p < .001$ . Among those with lower wellbeing profiles, there was no difference between the Low-Wellbeing and Low-Safety-and-Belonging educators,  $z = 0.86$ ,  $p = .39$ , but the Low-Safety-and-Belonging educators thought about

**Table 5.** Means (with SDs) and medians of turnover ratings as a function of wellbeing profile.

Wellbeing Profile	Satisfied with position	Considering leaving position	Considering leaving ECEC
Low WB	2.96 (0.82)	3	3.43 (1.10)
Low Belonging & Safety	3.58 (0.78)**	4	3.07 (1.20)
Moderate WB	3.97 (0.91)**	4	2.26 (1.03)**
High Belonging & Impact	4.13 (0.88)	4	2.55 (1.12)
Thriving	4.50 (0.92)*	5	2.05 (1.18)
Total sample	3.80 (0.97)	4	2.71 (1.19)

The two higher wellbeing groups differed from the three lower wellbeing groups on all three turnover intention items at  $p < .001$ .

\*Profile differed from preceding (next lowest wellbeing) profile at  $p < .01$ .

\*\*Profile differed from preceding (next lowest wellbeing) profile at  $p < .001$ .

moving jobs more than Moderate-Wellbeing educators,  $z = 4.18$ ,  $p < .001$ , suggesting that a lowered sense of safety and belonging was associated with an intention to leave even among educators with moderate evaluations of their professional impact. The difference in the extent to which High-Belonging-and-Impact educators and Thriving educators considered leaving their jobs was not significant,  $z = 2.23$ ,  $p = .03$ .

Furthermore, Table 5 shows that educators with the three lower wellbeing profiles reported considering leaving ECEC more often than those with higher professional wellbeing,  $z = 5.91$ ,  $p < .001$ . However, the difference between Low-Wellbeing and Low-Belonging-and-Safety educators was not significant,  $z = 1.92$ ,  $p = .055$ . Low-Belonging-and-Safety educators reported thinking about changing professions more often than Moderate-Wellbeing educators,  $z = 5.02$ ,  $p < .001$ , underscoring the association between an intention to leave the profession and a lowered sense of safety and belonging even in the context of educators who believed that they were making a positive impact. In addition, High-Belonging-and-Impact educators thought about leaving ECEC more often than Thriving educators,  $z = 3.40$ ,  $p < .001$ , indicating that an average rather than high sense of safety was related to a greater likelihood of thinking about leaving the field.

To summarize our results, a factor analysis of Australian ECEC educators' ratings on the ECPW-Q broadly supported the three-factor solution arrived at for ECEC professionals in the USA. Moreover, latent profile analyses of these three factors led to the identification of subgroups that varied in their patterns of professional wellbeing. Educators' distinct professional wellbeing profiles were associated with their job satisfaction, intention to leave their jobs and intention to leave the field of ECEC altogether.

## Discussion

Educators' sense of belonging and connection in their early childhood settings, their evaluations of their professional impact, and their confidence in their safety at work are distinct and vital elements of their professional wellbeing. The current investigation into the ECPW-Q responses of 368 Australian ECEC educators both supports and extends previous research. The wellbeing factors we identified are similar to those underlying the ECPW-Q responses of ECEC professionals in the USA (McCormick et al., 2022) and, in keeping with previous findings, educators' scores on wellbeing factors were related to their turnover intentions (McCormick et al., 2022; McMullen et al., 2020). However, the present research makes a new contribution in the identification of five distinct subgroups of ECEC educators with qualitatively different professional wellbeing profiles. The characteristics of these subgroups and differences in their job satisfaction, consideration of resigning, and intention to leave the field have far-reaching implications for understanding and supporting ECEC educators, tackling definitional challenges in wellbeing research, and refining existing methodologies.

The present results support the usefulness of the ECPW-Q for understanding key elements in the professional wellbeing of ECEC educators across countries and contexts. This is essential because valid, robust measures of educator wellbeing are vital for research addressing the daily threats to wellbeing that ECEC educators face (Farewell et al., 2023) and supporting the kinds of educator-child interactions that enhance children's learning and development (Slot, 2018; Torii et al., 2017). In a recent review of educator wellbeing interventions in ECEC and schools, only a third of the wellbeing self-report scales used by researchers were context-specific (e.g., teacher efficacy measures) rather than context-free (e.g., general stress scales) and few addressed educators' relationships (Cann et al., 2023). However, the current associations between ECEC educators' turnover intentions and their profiles of belonging and connection, safety and professional impact point to the usefulness of ECEC-specific multidimensional wellbeing scales such as the ECPW-Q. The present findings align with other studies highlighting the significance of educator's senses of belonging and connection, professional impact, and safety. In particular, they support research indicating that strong belonging

and connections (Jones et al., 2019; Ng et al., 2023; Stein et al., 2022) and safety at work (e.g., Hanno et al., 2022; Logan et al., 2021) are foundational to educators' professional wellbeing. Also, current evidence for the centrality of a professional impact evaluation factor is in keeping with studies pointing to the importance of finding meaning in ECEC work (Lavy, 2022) and having a sense of calling (Herman et al., 2023).

Our collection of ECPW-Q data over two years enabled us to examine the effects of concurrent lockdowns on ECEC educators' patterns of wellbeing. This analysis provided important and nuanced information about the impact of lockdowns. In support of reports that educator wellbeing was negatively impacted during the COVID-19 pandemic (e.g., Hanno et al., 2022; Logan et al., 2021) the likelihood of a Low-Belonging-and-Safety profile rather than a Thriving profile was greater when lockdowns were being held at the time educators were surveyed. This finding suggests that the stressors that Australian ECEC educators experienced during lockdowns were harmful to their sense of safety and belonging at work without affecting the way they evaluated their impact as professionals. However, it is also noteworthy that the Low-Belonging-and-Safety profile was the largest subgroup overall and almost half of educators with this profile were surveyed after lockdowns. Therefore, concerns about safety and belonging, though exacerbated by lockdowns, are present among a substantial number of educators when lockdowns are no longer occurring. Thus, it seems likely that the five profiles identified in the present study have ongoing implications for ECEC.

In support of the usefulness of person-centered analyses for identifying meaningful wellbeing differences among educators that have distinct impacts on the field of ECEC, our exploration of the ECPW-Q scores of the five profiles yielded four significant insights into professional wellbeing differences and turnover intentions among ECEC educators. These insights related to the distinct role of the Belonging and Connection, Impact Evaluation, and Safety factors, the benefits of a high rather than moderate sense of safety, the damaging implications of lacking a sense of belonging, connection and safety, and the characteristics of educators with very poor wellbeing. In what follows, we discuss these four insights in turn.

First, it is important to note that although the subgroups were ordered in terms of the overall strength of their professional wellbeing, educators' sense of belonging and connection, their impact evaluation and their confidence in their safety varied between subgroups in distinct ways. Educators' sense of belonging and connection differed markedly across the five profiles, suggesting that educators' perceptions of their relationships in ECEC settings are crucial to individual differences in their professional wellbeing. This aligns with qualitative research indicating that a strong sense of belonging was identified by educators as the most influential factor supporting workplace wellbeing (Jones et al., 2019). Extremely weak evaluations of professional impact set the lowest wellbeing group apart, suggesting that educators who evaluate their contribution in ECEC negatively have very poor professional wellbeing. In contrast to their belonging and connection and impact evaluation scores, educators' safety ratings varied most between the two groups with the highest professional wellbeing. These distinct patterns of subgroup scores across the different wellbeing factors support the usefulness of a person-centered analytic approach for uncovering complex and nuanced wellbeing differences among ECEC educators (cf. A. M. Roberts et al., 2023).

Second, the presence of a group of educators with strong wellbeing who differed from the Thriving group in that their safety ratings were moderate and not high (the High-Belonging-and-Impact group) is informative. Despite reporting strong relationships with colleagues and making positive evaluations of their professional impact, not only were these educators less satisfied with their jobs than Thriving educators but they were also more likely to leave the field of ECEC altogether. While increased membership in the Low-Safety-and-Belonging as compared to the Thriving group during lockdowns supports previous research suggesting that COVID-19 pandemic and lockdowns brought educators' safety concerns to the fore and negatively impacted their relationships (Hanno et al., 2022; Logan et al., 2021), differences in the turnover intentions of the High-Belonging-and-Impact and Thriving profiles shed a new light on the role of safety in ECEC workplaces. These differences suggest that safety should not be viewed in terms of a minimum standard. Instead, policies and supports that enhance an already

moderate sense of safety among educators are likely to lead to improved job satisfaction and increase the chances that staff will remain within the field of ECEC.

Third, the presence of a very large Low-Safety-and-Belonging group is noteworthy. This group had a somewhat lower than average sense of belonging and connection as well as safety in their ECEC roles despite average evaluations of their professional impact. They also had lower job satisfaction and considered leaving both their jobs and the ECEC profession more than educators with average scores across the three factors. Thus, a moderate drop in educators' sense of belonging, connection and safety is related to their turnover intentions. This is of grave concern because high ECEC staff turnover is detrimental to children's learning and development (Cassidy et al., 2017; National Scientific Council on the Developing Child, 2015). It also seems likely that if educators leave their positions because they feel disconnected and unsafe, the supportiveness and security of the workplace for remaining educators will be diminished, leading to a downward spiral of poor wellbeing and staff turnover. In a systematic review, Ng et al. (2023) found that the factors associated with ECEC educator burnout include low social capital, weak or incoherent organizational structure and weak professional relationships but that coaching, reflection and counseling-based interventions lower burnout risk. Although the present results do not pinpoint the exact conditions and experiences that make educators feel unsafe and disconnected, it seems likely that further research into interventions promoting strong professional relationships among educators and a safe work environment may lead to enhanced job satisfaction and improved retention of ECEC staff.

Fourth, an examination of the scores of the Low-Wellbeing group provides vital information about poor professional wellbeing in ECEC educators. Although this group had the lowest scores on all three factors, their belonging and connection and impact evaluation ratings were particularly weak and their job satisfaction was low. Improvements that enhance educators' experiences of support and acceptance in the workplace and contribute to their sense of making a positive impact are urgently needed to promote job satisfaction in the most at-risk group (Irvine et al., 2016; Murray et al., 2022). A range of both internal and external challenges will need to be addressed to effect such changes. For example, Clayback and Williford (2022) found that teacher anger, child behavior, and the presence of classroom support staff were related to ECEC educators' work-related stress over and above teachers' personal and professional backgrounds. Similarly, the poor wellbeing group identified by Roberts and colleagues was characterized by poor psychological wellbeing, including self care and self compassion, lower qualifications, occupying the role of assistant teacher, less pay, and more adverse childhood experiences (A. M. Roberts et al., 2023). At an individual level, exploring the psychological health of the Low-Wellbeing group would be useful because variable-centered analyses indicate that poor wellbeing and job dissatisfaction are associated with psychological distress in ECEC educators (Fináncz et al., 2020; Peele & Wolf, 2021). Helping ECEC leaders to promote a supportive work environment is vital (Doromal & Markowitz, 2023).

Further research exploring the degree to which leadership support is associated with higher educator wellbeing profiles and studies of how psychological distress, stress and burnout are related to lower wellbeing profiles are likely to be informative. An exploration of the impact of wellbeing profiles on educators' attitudes, beliefs and feelings about teaching and learning in ECEC within key domains such as numeracy and literacy may also prove fruitful. In order to understand the present wellbeing profiles in a broader context, an important next step would be to explore whether the subgroups differ in their perceptions of how their profession is regarded in society, including their views on status and remuneration, as well as exploring differences in the professional roles that subgroup members occupy.

### **Limitations**

Because the questions in the ECPW-Q are based on Maslow's hierarchy of needs (McMullen et al., 2020), the professional wellbeing data in this study is framed by the motivations and development of individual educators. This constrains the kinds of conclusions that can be drawn. Future research expanding the

current focus to take into account variation in workplace demands and the systemic, cultural and societal factors that impact ECEC educators is crucial (Berger et al., 2022; Clayback & Williford, 2022; Ng et al., 2023). Statistically, a greater number of wellbeing indicators and a larger sample size would increase the power of the latent profile analyses employed in the present study and raise the probability of cases being correctly assigned to the smallest profile (High Belonging and Impact) to a more desirable level. Methodologically, relying on survey data to gain insights into the dynamic, multifaceted concept of ECEC educator wellbeing has limitations. Further research employing mixed methods approaches would help address this issue. Specifically, it would be useful to supplement our profile analyses of educators' ratings of survey items selected by researchers with educators' qualitative responses to open-ended prompts about contextual and individual variables impacting their wellbeing. It should also be noted that the participants in the current study were mainly from Victoria, Australia and underwent strict COVID-19 lockdowns either a few months before they were surveyed or at the time of the survey and it is not clear how generalizable these findings are to other populations.

## Conclusions

Australian educators' distinct patterns of responses to three factors that underlie their ECPW-Q scores provide evidence for the complex, multifaceted nature of their professional wellbeing. In particular, the present results show that gradations in educators' sense of safety within the moderate to high range have startling implications for their turnover intentions. The findings also indicate that a sense of belonging, connection and safety that is even slightly below average is associated with poor job satisfaction and is related to ECEC staff considering leaving their jobs and professions altogether. Furthermore, educators with very poor professional wellbeing feel disconnected and isolated in their ECEC settings and do not rate their professional impact positively. Now that we have identified these distinct professional wellbeing subgroups, it is vital for future research to address differences in their psychological health, attitudes to teaching and learning in ECEC and the impact of external factors including workplace roles, demands and leadership support as well as broader systemic and societal influences. In addition, interventions designed to enhance ECEC educator wellbeing are likely to affect the five subgroups differently. Examining such variation as well as exploring the qualitative responses of subgroups will prove useful in understanding and measuring wellbeing and addressing the significant and ongoing threats to wellbeing that ECEC educators face.

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## Data Availability Statement

Requests to access the data supporting the results presented in this paper should be made directly to the authors.

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## Appendix

### Appendix A.

**Table A1.** Means (with SDs) of preschool teachers' z scores on wellbeing, factors and turnover intention scores as a function of cohort.

Variable	Cohort			
	Concurrent lockdowns		Post lockdowns	
Wellbeing factor				
Belonging and Connection	-0.22	(0.91)	0.19	(1.06)
Evaluation of Impact	0.08	(0.94)	0.01	(0.97)
Safety	-0.28	(0.91)	0.41	(0.95)
Turnover intention				
Satisfied with position	3.73	(0.98)	3.99	(0.84)
Considering leaving position	2.87	(1.03)	2.29	(1.07)
Considering leaving ECEC	2.96	(1.05)	2.25	(1.16)

Turnover intention items were rated on a Likert scale from 1 (Never) to 5 (Almost Always).