

## The Impact of Psychological Intelligence Coursework on Australian Elderly Care Professionals' Job Performance

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### Abstract

**Introduction** Human resource professionals are increasingly interested in psychological intelligence (PI) training, however there is less data to support the claim that it improves healthcare workers' performance.

**Purpose** This article takes a look at how PI training in an Australian nursing home affected the care provided to residents, as well as the happiness and sense of agency felt by the staff.

**Methodology** In 2021-2023, we used a quasi-experimental approach in which half of the participants received training and the other half did not. There were two categories, with a total of 100 people in each. The final sample included 64 persons for the training category and 36 people in the control category. We evaluated the effects of training employees in psychological intelligence over a 6-month period, looking for increased job satisfaction, self-efficacy, and productivity as well as better standard protection .

**Results** Overall, the training group fared better than the control group in terms of PI ratings, care quality, staff well-being, and self-esteem. The control category showed no statistically significant deviations.

**Conclusions** We analyze the effects of PI training on staff and residents of an elderly care facility to show how it can improve the standard protection provided. Research shows how PI training can enhance both the working conditions and the level of care provided by those who work in the elderly care industry.

**Keywords:** psychological intelligence (PI), quasi-experiment, training category, control category, Australian nursing home.

### 1. Introduction

Coursework in psychological intelligence is any form of formal education or training whose stated goal was to raise students' PQ. In these types of classes, students work on improving their psychological literacy, empathetic reasoning, self-control, and social skills. Coursework may incorporate a variety of instructional methods, including lectures, labs, case studies, and category projects. Professionals from a wide range of industries, including healthcare, education, leadership, and customer service, can benefit from taking courses on psychological intelligence (Ingram, et al. 2021). To better understand and control one's own emotions and to detect and appropriately respond to the emotions of others is the major goal of psychological intelligence training. Individuals can improve their social skills, decision-making abilities, stress tolerance, and adaptability in social and psychological crises by working to increase their psychological intelligence.

Professionals caring for the elderly population need not only technical competence but also an in-depth comprehension of the psychological and psychological dimensions of their work. Connecting with older individuals and meeting their complex psychological needs requires a level of psychological intelligence that goes beyond a simple knowledge of how to read and respond to emotions (Thompson, et al. (2020). While the impact of psychological intelligence training on professionals in other fields has been researched extensively, the effect on Australian aged care workers has been investigated less. This information deficiency calls for

research on the possible uses and consequences of psychological intelligence training for this sector of the workforce (MacCann, et al. 2020).

This article takes a look at how PI training in an Australian nursing home affected the care provided to residents, as well as the happiness and sense of agency felt by the staff.

Paper organization: section 2 - methods including sample, Research design, psychological intelligence coursework, Evaluation methods, section 3- Results, including PI, standard protection, welfare, self-esteem, Section 4-conclusion are demonstrated in this paper.

## 2. Literature review

Chao, et al., (2018), primarily used the three tiers of the Kirkpatrick Model (behaviour, response, and learning) to examine how happy seniors were with the mobile learning courses created for the research. A standardized trainee interview guide, a trainer observation log, and a quantitative version of the Kirkpatrick assessment were used to gather data for this post test. Gómez-Salgado, et al., (2021) examined the correlation between occupational category and psychological distress among health care workers actively engaged in patient care during the COVID-19 epidemic. During the recent COVID-19 pandemic, they evaluated the psychological discomfort and work engagement experienced by healthcare personnel. Finding a significant correlation between psychological distress and interest in one's job. Doctoral-level students in health care psychology were scouted from universities around the country for their expertise in clinical and counseling psychology. Regarding instrument coverage, there is often little variation between program types and disciplines in terms of perceived competency and instrument exposure, and clinical training and exposure is typically reduced when compared to didactic approaches, all of which reflect a general convergence with professional practice trends (Ingram, et al. 2021). The purpose was to analyze the relationship between job performance and EI for women teachers in high school. Job satisfaction, Work-related attitudes, organizational commitment, and intention to leave, were also found to have an effect on the connection between EI and performance on the job (Latif, et al. 2017). PNS as a mediating factor, Ramalu and Subramaniam (2019) seeks to investigate the direct and indirect impacts of CQ on WE. Sommaruga, et al. (2017), aimed to examine the relationship between healthcare professionals' psychological intelligence (EI) and their reported ability to deliver patient-centered care (PCC), using GSE as a potential mediator.

Thompson, et al. (2020) used a pre-post survey design to examine MBA applicants' psychological intelligence, self-efficacy and locus of control over the course of an MBA program lasting one year development and they looked into how the applicants' pre-MBA psychological health related to their post-MBA academic performance. The results show that one of the main advantages of an MBA degree is the development of psychological competencies that may improve performance on the job. Social and psychological abilities, such as psychological intelligence (EI), are given a high priority in today's classrooms and colleges. Partially, the goals of such programs are to help participants grow as individuals, and partially, they are to help participants succeed in school. The purpose of this meta-analysis was to examine the correlation between students' EI and how well they did in school (MacCann, et al. 2020). A model or conceptual framework for connecting WS, WA, and PSYEMP in educational institutions was proposed. An unique concept was proposed here in which the WS influences the WA of educators via the moderating effect of PSYEMP. The research purpose was an attempt to link spirituality in the workplace (WS) with adaptability in the classroom (Paul, et al. 2020). The purpose of the research was to look into how EQ relates to librarians' overall happiness on the job. To this end, a statistical survey of Pakistan's academic librarians was done. Pakistani academic librarians were surveyed via questionnaire to gauge their psychological intelligence and level of job satisfaction (Khan, et al. 2017). Based on the data presented here, Hoque, et al. (2018) concluded that employee involvement moderates the connection between pay structure and productivity. Based on these findings, business owners in Bangladesh need to create a more equitable wage structure to boost employee morale and productivity, which will ultimately boost GDP growth for the country. Jyoti and kour (2017), aimed to investigate the connection between cultural competence and occupational success by investigating the moderating effect of cross-cultural adaptation (CCA) on the impact of social and psychological intelligence (SQ) on CQ. The connection between CQ and CCA has also

been evaluated, as have the effects of prior experience and perceived social support. The purpose was to examine the effect of EI on cyber victimization and the psychological adjustment of teenagers, focusing on issues of self-concept, depression, and life satisfaction. The introduction of EI and its aspects affects the ways in which cyber victimization was related to feelings of self-concept and melancholy (Estévez, et al., 2020). The goal of the da Costa, et al., (2021), was to determine how EQ predicts TPSE among mathematics educators. TPSE is comprised of three subscales: TPSE in general (GTSE), TPSE in understanding mathematics content (SEUMC), and TPSE in teaching mathematics content (SETMC). Hamilton, et al. (2018) goal was to highlighted the research on culminating learning experiences (CLEs) and work-integrated learning (WIL) programs so that undergraduate psychology students can benefit from these programs and the community at large. They presents a synopsis of the state of the art and some insight into potential future directions by conducting a critical literature review of the vast literature published over the past decade. The writers build on their personal experience and the existing research to synthesize the findings of several primary studies on capstone and WIL courses.

### 3. Methodology

In this study, we use a quasi-experimental approach to introduce a training intervention for psychological intelligence (PI). Quasi-experimental studies like this one have never been done before. In developing the training interventions, we took into account the organization's culture, the regulations of the workplace, and the ways in which employees are expected to handle their emotions. Both the partnering organization and institution gave their stamp of approval to the sample.

#### 3.1 Sample

In order to determine whether or not training in psychological intelligence improves the productivity of Australian care workers for the elderly, this study will employ a quasi-experimental methodology. Participants will be chosen using a purposive sampling method, and all of them will have worked in the elderly care industry for at least a year. Statistical power calculations will be used to assess the sample size needed to produce reliable results. The psychological intelligence training intervention will be created using standard methodologies and theoretical frameworks. It will be a series of courses or modules led by professionals with knowledge in both psychological intelligence and geriatric care. Important topics like self-awareness, self-control, empathy, social competence, and psychological management will all be addressed over the course of instruction.

Care managers were among the few members of the staff, but others who interacted with residents included personal care aides, nurses, lifestyle and recreation workers, kitchen and housekeeping employees, and others. At first, there were eighty people at each location. Because of this equality in resident numbers, we were able to randomly assign half of the residents to one facility for training/experimentation, and the other half to the control facility. Between 2021 and 2022, the project's training and data collecting took place with participants' consent. A bootstrapping method was employed to verify the consistency of the findings due to the limited sample size. Table 1 displays the percentages of those who responded.

**Table 1:** Study participation and response rates

Response rates of the study participants			
	Data collection	Post	Baseline
<b>Residents</b>	Training	15 (50%)	30 (100%)
	Control	15 (50%)	30 (100%)
<b>Staff</b>	Training	32 (47%)	67 (100%)
	Control	32 (81%)	31 (100%)

There will be a pre-test and a post-test administered for data collection purposes. The Psychological Intelligence Questionnaire and other validated self-report measures, as well as standardized job performance scales tailored to the elderly care industry, will be used to conduct a baseline evaluation of the trainees before the training

intervention begins. Participants will take a post-test measuring psychological intelligence and job performance outcomes after the training intervention is complete using the same instruments. Quantitative assessment data will be examined with suitable statistical methods. Participants will be described using descriptive statistics, and their baseline and post-training psychological intelligence and work performance will be compared using paired t-tests. The level of statistical significance will be set at  $p < 0.05$ .

### **3.2 Research design**

To determine whether or not training in psychological intelligence improves the productivity of Australian care workers for the elderly, this study will use a randomized controlled trial (RCT) research design. Participants will be split into two categories: one will receive the psychological intelligence training intervention, while the other will receive no training at all. Psychological quotient and productivity on the job will be assessed before and after the intervention. Established frameworks and best practices in psychological intelligence training will inform the development of the training intervention, which will be delivered by knowledgeable trainers. To compare the effectiveness of the training, quantitative data from the assessments will be examined with suitable statistical methods. Using this methodologically sound approach, the study intends to contribute to the creation of efficient training programs and interventions for the aged care industry in Australia by demonstrating the positive effects of training workers' psychological intelligence.

### **3.3 psychological intelligence coursework**

Coursework in psychological intelligence is a subset of the larger field of education known as psychological quotient (PQ) training. The goal of this training is to help students better understand and control their own emotions as well as those of others around them. Self-awareness, empathetic understanding, psychological management, and effective communication are just some of the abilities that can be developed through the coursework's blend of academic study, hands-on practice, and category discussion and debate. Courses that focus on developing students' PQ aim to help them better handle difficult social circumstances, forge stronger bonds with others, and boost their own psychological health. By taking courses specifically designed to boost one's PQ, people can improve their social skills, decision-making, and stress/conflict management across a wide range of personal and professional settings. Courses can help students develop their PI, which in turn boosts their personal development, interpersonal interactions, and professional accomplishments.

Participants went from having their awareness raised to actually practicing new, self-aware habits at the end of the training. One of the method's strongest points is the incorporation of micro practices to break habitual, subconscious reactions to stress. These micro-conscious practices are delightful because they are tied to routines that people already have.

### **3.4 Evaluation methods**

Participants' mental processes were evaluated through the use of paper and pen questions they filled out themselves.

#### **3.4.1 PQI-2.0**

The psychological Quotient Inventory 2.0 (PQI- 2.0) is a popular test used to gauge a person's social and emotional competencies. Designed by Reuven Bar-On, it assesses several facets of emotional intelligence including as self-awareness, self-expression, interpersonal competence, decision making, stress tolerance, and general health and happiness. The inventory uses self-report questions to help people learn more about their emotional abilities and where they can grow. Psychological intelligence, decision-making skills and interpersonal relationships are all boosted through its use in personal development, leadership training, and business settings.

## **4. Results**

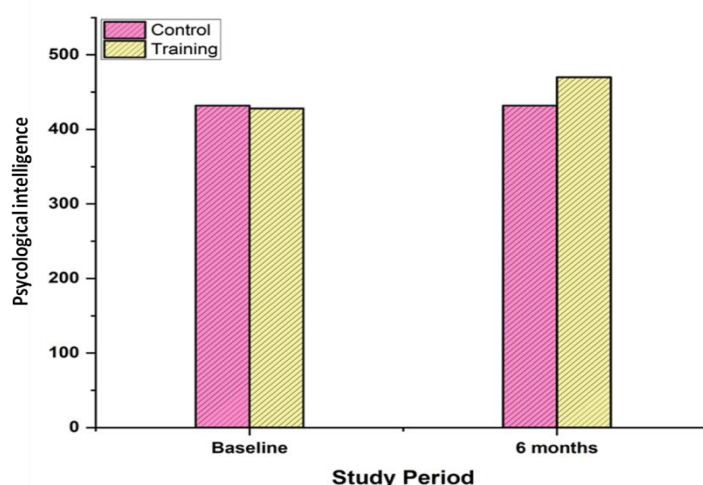
Table 2 displays descriptive statistics for the outcome variables. We utilized paired sample t tests to compare pre- and post-test scores on the PI, standard protection, welfare, and self-esteem measures to identify statistically significant differences.

**Table 2:** Paired sample t test

	Mean	Mean					Bootstrap <sup>a</sup> 95% Confidence interval
	Pre	Post	t	df	$\rho(2\text{-tailed})$	Lower	Upper
Experimental psychological intelligence pre-post	439	475	-3.73	29	.006	-55.20	-17.99
Control psychological intelligence pre-post	438	435	.70	20	.527	-13.22	21.28
Paired sample t test for staff self-reported standard protection							
Experimental standard protection pre-post	3.14	3.39	-3.04	30	0.11	-0.47	-0.12
Control standard protection pre-post	3.09	2.04	1.05	20	.338	-0.12	0.34
Paired sample t test for resident-reported standard protection							
Experimental standard protection pre-post	2.68	3.26	-4.46	14	.008	-0.95	-0.42
Control standard protection pre-post	2.35	2.34	-0.52	14	.649	-0.30	0.20
Paired sample t test for welfare							
Experimental welfare pre-post	1.17	0.98	3.05	30	.010	0.099	0.48
Control welfare pre-post	0.97	1.06	-0.23	20	.865	-0.29	0.21
Paired sample t test for self-esteem							
Experimental self- esteem pre-post	3.94	4.31	-2.87	30	.014	-0.78	-0.18
Control self-esteem pre-post	4.21	4.15	0.96	20	.380	-0.14	0.30

#### 4.1 Psychological intelligence

After 6 months of training, there was a statistically significant increase in PI across all categories. Table 2 displays that there were no statistically significant differences between the control category and the experimental category regarding PI within the same time period. Comparison of pre- and post-study PI abilities is shown in Figure 1. These conclusions are supported by the results of 1,000 replicate random samples obtained by bootstrapping.



**Figure 1:** Comparison of pre- and post-study PI skills

#### 4.2 Standard protection

At the end of the 6-month trial period, staff in the training category reported providing higher-quality care to residents,  $t(30) = -3.04$ ,  $p = 0.11$ . At the end of the trial, the control category showed no signs of improvement  $t(20) = -0.23$ ,  $p = 0.865$ . Table 2 displays the results of the confidence interval calculations. The impact of PI training on nurses' perceptions of the quality of care they provide is depicted in Figure 2. The impact of PI training on the quality of care as indicated by residents is seen in Figure 3.

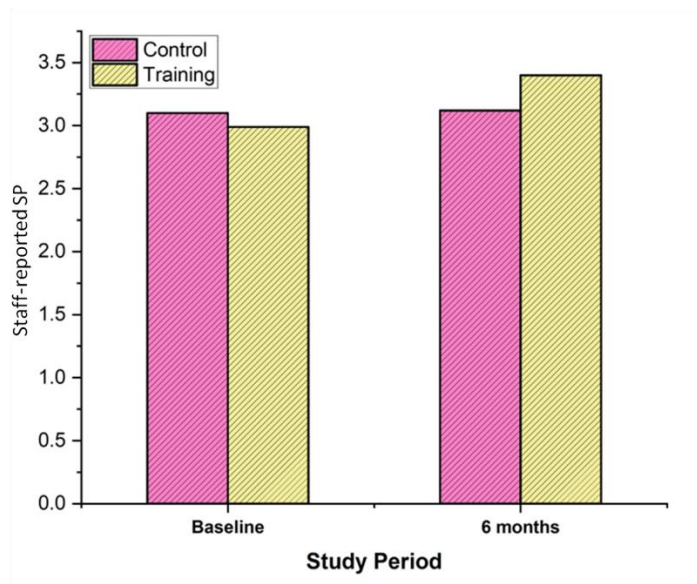


Figure 2: impact of PI instruction on healthcare workers perceptions of their own performance

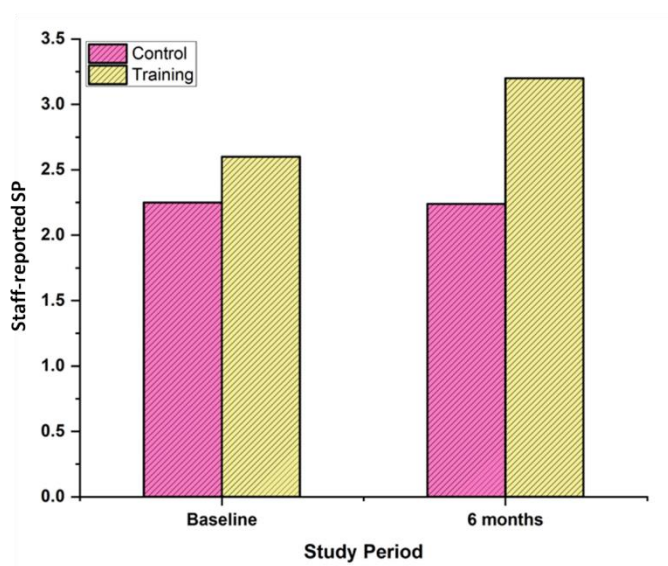
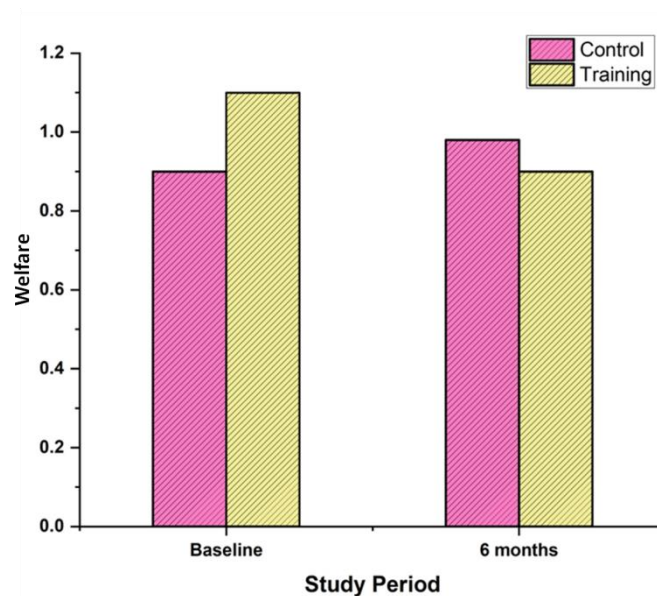


Figure 3: Impact of PI classes on residents' standard protection

#### 4.3 Welfare

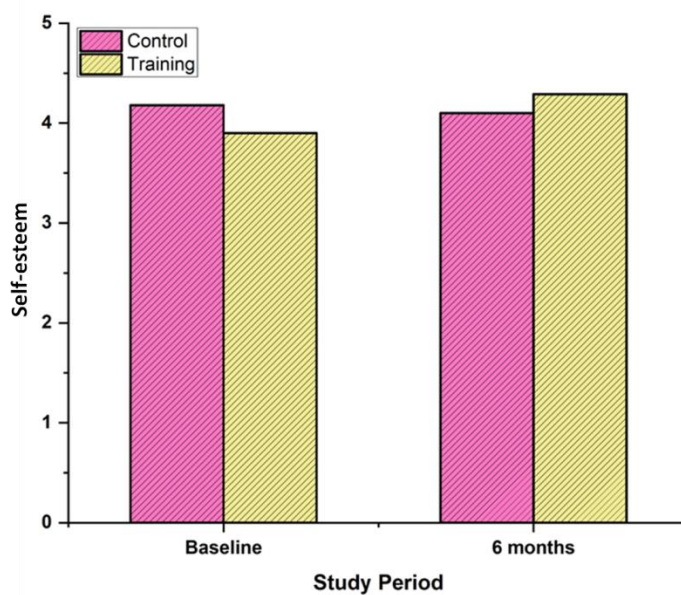
Self-reported overall well-being of the training categories significantly increased after 6 months of training,  $t(30) = 3.05$ ,  $p = 0.014$ . During the same time period, there were no statistically significant differences in the control category's welfare  $t(20) = 0.96$ ,  $p = 0.380$ ). Table 2 shows the resulting confidence intervals from the calculations. In Figure 4 we see how PI training can improve people's lives in general.



**Figure 4:** Impact of PI classes on residents welfare

#### 4.4 Self-esteem

At the end of the trial, the training category showed statistically significant increases in psychological empowerment ( $t(30) = -2.87, p = .014$ ). The control category showed no statistically significant changes ( $t(20) = 0.91, p = 0.375$ ). The descriptive data regarding psychological empowerment before and after the study are shown in Table 2. The paired sample t test for emotional freedom is displayed in Table 2. Figure 5 shows how PI training can increase one's sense of mental strength and self-confidence.



**Figure 5:** Impact of PI classes on residents self-esteem

#### 5. Limitations

The findings are significant, but the study has a number of flaws. Firstly, the study's sample size is rather limited, covering only two facilities for the elderly, reducing the external validity of the findings. Over the course of the 6 months, there was attrition as some individuals dropped participation for various reasons (e.g.,

they found another job or went on vacation). Two, the study's limited ability to compare the effects of psychological intelligence training is mitigated by the fact that the control category received no training due to financial restraints. What's more, we don't know how long the training effect will last. The study's limited sample size and its focus on a single facility for the elderly also limit its applicability. Finally, the literature emphasizes the difficulty of establishing PI as a strong predictor of job performance in comparison to other characteristics such as personality and self-efficacy. Although the results of this study are suggestive of a link between PI training and patient-reported outcomes, they do not rule out the possibility of a comparable link between training in some other psychological concept. These gaps call for additional investigation into the links between job performance and other psychological concepts and for studies to be conducted with bigger, more representative samples.

## 6. Conclusion

The effects of increased psychological quotient (PQ) skills on care delivery in nursing homes are examined in this study. Despite academic debate about PI, this study reveals how training for care providers in PI can improve both their jobs and the lives of their residents. In order to improve worker well-being and the quality of care offered as a whole, the findings suggest more research into PI training in emotionally demanding industries like healthcare. Increasing participant numbers, addressing attrition, and providing minimal instruction to the control category are all recommendations for future studies. To learn whether or if the benefits of PI training last over time, we need to take longitudinal surveys. It is also recommended to use a large sample size, a wide range of training methods, and to examine the impact of contrasting them with training in areas like resilience.

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