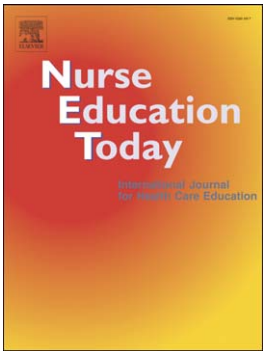

Do emotional intelligence and previous caring experience influence student nurse performance? A comparative analysis

Rosie Stenhouse, Austyn Snowden, Jenny Young, Fiona Carver, Hannah Carver, Norrie Brown

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DO EMOTIONAL INTELLIGENCE AND PREVIOUS CARING EXPERIENCE INFLUENCE STUDENT NURSE PERFORMANCE? A COMPARATIVE ANALYSIS

Rosie Stenhouse PhD RMN, Lecturer,

University of Edinburgh

Austyn Snowden PhD RMN, Professor in Mental Health,

Edinburgh Napier University

Jenny Young MSc, Research Assistant,

Edinburgh Napier University

Fiona Carver MSc RMN, Lecturer,

Edinburgh Napier University

Hannah Carver MSc, Research Assistant,

Edinburgh Napier University

Norrie Brown PhD RMN, Senior Lecturer,

Edinburgh Napier University

Corresponding Author:

Rosie Stenhouse

Nursing Studies

University of Edinburgh

Medical School

Teviot Place

Edinburgh

EH8 9AG

0131 651 5160

Rosie.Stenhouse@ed.ac.uk

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Do Emotional Intelligence and previous caring experience influence student nurse performance? A comparative analysis.

ABSTRACT

Background: Reports of poor nursing care have focused attention on values based selection of candidates onto nursing programmes. Values based selection lacks clarity and valid measures. Previous caring experience might lead to better care. Emotional intelligence (EI) might be associated with performance, is conceptualised and measurable.

Objectives: To examine the impact of 1) previous caring experience, 2) emotional intelligence 3) social connection scores on performance and retention in a cohort of first year nursing and midwifery students in Scotland.

Design: A longitudinal, quasi experimental design.

Setting: Adult and mental health nursing, and midwifery programmes in a Scottish University.

Methods: Adult, mental health and midwifery students (n=598) completed the Trait Emotional Intelligence Questionnaire-short form and Schutte's Emotional Intelligence Scale on entry to their programmes at a Scottish University, alongside demographic and previous caring experience data. Social connection was calculated from a subset of questions identified within the TEIQue-SF in a prior factor and Rasch analysis. Student performance was calculated as the mean mark across the year. Withdrawal data were gathered.

Results: 598 students completed baseline measures. 315 students declared previous caring experience, 277 not. An independent-samples t-test identified that those *without* previous caring experience scored higher on performance (57.33 ± 11.38) than those with previous caring experience (54.87 ± 11.19), a statistically significant difference of 2.47 (95% CI, 0.54 to 4.38), $t(533) = 2.52$, $p = .012$. Emotional intelligence scores were not associated with performance. Social connection scores for those withdrawing (mean rank = 249) and those remaining (mean rank = 304.75) were statistically significantly different, $U = 15300$, $z = -2.61$, $p < 0.009$.

Conclusions: Previous caring experience led to worse performance in this cohort. Emotional intelligence was not a useful indicator of performance. Lower scores on the social connection factor were associated with withdrawal from the course.

Key Words: Emotional intelligence; student nurse; pre-registration; performance; previous caring experience; longitudinal

INTRODUCTION

The findings of the Mid Staffordshire Inquiry (Francis, 2013) can be understood as the catalyst for a renewed focus on values in nursing, one which was already in nursing's psyche following a number of previous reports into nursing care (cf Abraham 2011; Mental Welfare Commission Scotland 2011; DH 2012a; BBC News http://www.bbc.co.uk/news/health-20427441; Telegraph 27/8/09 http://www.telegraph.co.uk/comment/telegraph-view/6101395/Poor-nursing-care-must-not-be-tolerated.html) . However, the Francis (2013) report, its length and depth and the extent of the issues that were unearthed in relation to the provision of care at the Mid Staffordshire NHS Trust created a political backlash that landed much of the responsibility for improvement at nurse education's door.

Francis' (2013) call for the development of an aptitude test for selection onto pre-registration nursing programmes has increased the focus on values based selection (Department of Health at http://francisresponse.dh.gov.uk/recommendations/191/). His recommendations also underpin the development of pre-nursing experience pilots by Health Education England (https://hee.nhs.uk/our-work/developing-our-workforce/nursing/pre-nursing-experience-pilots) predicated on the assumption that experience of working in '*frontline health care'* prior to entering nurse education would lead to more caring and compassionate nurses.

A Department of Health review of recruitment and selection onto pre-registration nursing and midwifery programmes identifies that the NHS values (dignity, respect and non-discrimination) are central to good experiences of health care (DH 2012b). The report goes on to state that *"it is therefore important that the future education system enables initial entrants to healthcare to possess these values intrinsically and that these values are nurtured and maintained throughout their careers both in University education and Registered Professionals…"* (DH 2012b: 8). It is unclear from this statement whether it is envisaged that healthcare students should possess these values *intrinsically* on entry; the political desire within the UK to instigate values based selection of nursing and midwifery students onto pre-registration programmes, and the development of the pre-nursing experience pilots would indicate that this is the case. Thus there is an assumption that if you select the people with the right values into nurse education you will produce 'better' nurses; ones who are more compassionate and caring and will therefore prevent further catastrophic failures of care.

However, whilst there has been some work in relation to how values based selection might be undertaken (Waugh et al 2014; Health Education England 2014a), the concept of values based selection is problematic. It raises concerns over which values should be selected for; how these might be reliably and validly identified and measured; the scope for development of the desired values through nurse education and therefore an understanding of what students would be required to demonstrate prior to entry to their nursing or midwifery programmes (Snowden et al 2015a).

In light of the conceptual difficulties identified above, a longitudinal study to investigate the impact of emotional intelligence (EI), demographic factors, previous caring experience and mindfulness on student nurse and midwife performance and retention across the three years of their pre-registration education was commenced in 2013 (Snowden et al 2015a). EI relates to our ability to identify and work with our own and others' emotions, and was chosen for investigation as it is often discussed in the literature as a central part of nursing (Bulmer Smith et al 2009) and there is evidence that EI might be linked to nurse performance. EI is also theoretically conceptualised and empirically tested in the psychology literature and there are a number of valid and reliable instruments for its measurement thus mitigating the problems related to measurement of poorly defined or conceptualised 'values'. This paper reports on the performance related findings of the 2nd data collection period.

BACKGROUND

Previous Caring Experience

One of the most immediate responses to the Francis (2013) report has been the pilot testing of a period of care experience as a nursing assistant prior to application to nursing programmes (Health Education England 2014b). Although intuitively appealing and politically expedient there is currently no evidence to connect previous caring experience with future success in nursing. Evaluation thus far indicates that students appreciate the insight into what nursing is about, which may lead to increased retention on programmes (Health Education England 2014b). However it remains to be seen whether this pre-nursing experience will lead to increased performance and demonstration of 'better' values than those who have not had this experience.

It is this assumed association between pre-nursing caring experience and better values, and the inference that this will lead to better performance in nurses that underpins the development of the first hypothesis in this study.

Emotional Intelligence and nursing performance

EI is broadly concerned with the ability to identify and respond to one's own and other's emotions in the context of social interaction. However, it is not a unified concept, with two main bodies of work theorising EI either as a form of intelligence (cf Mayer and Salovey 1993; Mayer et al 1999) or as a personality trait (Petrides et al 2007). Conceptualisation of EI as trait is based on personality theories thus EI would be a stable trait and therefore not amenable to change through education. If this is so, the level of EI identified prior to entering nurse education, if found to be associated with student nurse performance, could be used within selection process as a predictor of future nursing performance. Mayer et al's (1999) theorisation of EI as a form of general intelligence makes it amenable to nurse education. Understanding how EI changes over time in relation to nurse education and how it is linked to student performance provides potential in terms of selecting students based on an identified range of scores that provide an optimum baseline from which to work during the educational process. Empirical testing of these theories has led to the development of a number of validated and reliable measures (Schutte et al 1998; Mayor and Salovey 2000; Bar-On 2006; Petrides 2009). Given the two conceptual bases for EI, measures based on each were chosen for use in this study.

The dimensions or (sub)factors constituting the various measures are related to the model of EI on which the measure is based. Given the different models of EI these factor structures will vary and require identification to support the valid use of the measure. Confirmatory factor analysis and Rasch analysis of the trait EI measure used in this study (TEIQue-SF) using the baseline data (n=938) identified a factor in the TEIQue – SF which was not measuring EI. This single factor seemed to be measuring tendencies related to social connection rather than EI and is discussed in the next section (for details of this analysis see Snowden et al 2015b).

A review of the literature on EI and nursing (Bulmer Smith et al 2009) suggested that EI could have predictive potential for student selection. Such predictive potential would be based on the relationship between student nurse EI on entering nurse education, and student completion and attainment of competence for registration as a qualified nurse. There are currently no published longitudinal studies which have addressed this issue.

A number of international studies have identified a positive correlation between EI and performance in both student and registered nurse populations. Beauvais et al (2011) found that EI scores were significantly associated with nursing performance in 87 student nurses. Similarly, Codier et al (2008) found that EI was positively correlated with performance of a group of 27 registered nurses. EI has also been positively correlated with team performance (Quoidbach and Hansenne 2009) and leadership qualities (Chan et al 2014; Erkutlu and Chafra 2012).

EI may also be positively associated with general intelligence. Codier and Odell (2014) identified a significant correlation between EI and grade point average in a cohort of 72 student nurses, whilst Por et al (2011) found that high educational background on entry to nurse education was significantly correlated with EI. Benson et al (2010) identified a positive correlation between year of programme and EI in 100 nursing students perhaps indicating that EI develops in response to nurse education, although this was a cross sectional study which therefore lacks the ability to examine change over time. However Collins (2013) found a negative correlation between EI and year of program. Additionally, studies of EI in student nurses have correlated EI with coping and mental health (Montes Borges and Augusto 2007), self-concept (Augusto Landa et al 2009), and retention (Jones-Schenk and Harper 2014). Such qualities might be linked to student retention on nursing programmes.

An exploration of the relationship between EI and caring behaviours of nurses identified associations between scores on some of the dimensions of the EI measure and some caring behaviours (Rego et al 2010). However, in this study *total* EI scores were not significantly associated with caring behaviours. This seems to represent something of a pattern in the EI literature in that studies often demonstrate links between various subfactors of the EI measures and measures of performance, but do not show consistency (Mayer et al 2008).

Given the small cohorts in most studies, variation in measures and performance indicators, results are difficult to compare. However, the general trend of findings towards positive relationships between EI and performance underpin the hypothesis of this study.

Social Connection

Given that the factor structures of existing measures of EI can be difficult to replicate (Mayer et al 2008) we first tested the factor structure of the TEIQue-SF in our sample using the baseline data collected from students on entry to the first year of their programme. The rationale was to investigate the psychometric properties of the measure to identify any pertinent factor(s) before we obtained the performance data at the end of the first year of study.

The TEIQue-SF is a 30-item trait emotional intelligence measure based on 15 facets and four factors (Well-being, sociability, self control & emotionality) identified by Petrides (2006) from his larger 130-item TEIQue. This four-factor structure has been replicated in the long form TEIQue but not the short form. To construct the short form of the measure, two items from each of the facets were selected based on their correlation with the corresponding facet, resulting in a global EI score.

This four-factor structure suggested by Petrides did not exist in our dataset however (Snowden et al 2015b). Any subfactor analysis based upon Petrides' factors would have been invalid. Rather, a different factor structure was obtained. Both factor and Rasch analysis pointed to the existence of five items that behaved as a secondary factor (table 1). It is notable that within the baseline data this social connection factor accounted for the gender difference in EI scores (females scored significantly higher than males). The impact of this factor may therefore be important to explore as it creates a gender bias within the scoring of the TEIQue-SF which may lead to de-selection of male applicants if used for selection onto nursing programmes.

INSERT TABLE 1 HERE

These five items (table 1) relate to negative aspects of mood and sociability and could be assumed to be negatively associated with the development of positive relationships between nurses and patients. This factor was named 'social connection' and it could be hypothesised that lower scores on this factor (which indicate a greater degree of disconnection), could be indicative of lower levels of retention on the course. In other words people scoring low on this measure may struggle to fit in with the real world of nursing. This factor could potentially identify these people and if so be used in predictive models in future.

In methodological terms it is therefore important to note that the social connection score presented below is *not a separate measure* from the TEIQue-SF, but a factor identified within it in secondary data analysis (Snowden et al 2015b). The social connection factor would benefit from further confirmatory factor analysis and Rasch analysis in other populations to validate its presence as a coherent factor within the TEIQue-SF. However with this caveat, it appeared a valid and conceptually coherent factor to explore.

The wider programme of study

This paper reports on part of a longitudinal study designed to measure the impact of EI and previous caring on the progression of nursing and midwifery students (Snowden et al 2015a). Data collection commenced in two Scottish universities in Sept 2013. This paper reports on the relationship between the data gathered on entry to the programme (baseline data) and at the end of the first year of study in relation to the first year performance of the nursing and midwifery students (n=598) from one of the universities.

AIM

To examine the impact of:

1. Previous caring experience,
2. Emotional intelligence, and
3. Social connection scores, on:

Performance and retention in a cohort of first year nursing and midwifery students in Scotland.

The following hypotheses were tested:

1. Previous caring experience will lead to better performance
2. Emotional intelligence will be associated with performance
3. Social connection scores will predict withdrawal (temporary or permanent) from the programme

METHOD

Design
A quasi-experimental longitudinal approach was taken as this enabled an examination of individual students' progress in relation to the variables discussed above.

Sample
A single second year cohort of students from adult and mental health nursing, and midwifery programmes at a Scottish University (n=598).

Measures
All participants completed EI measures on entry to year one of their programme using two validated measures: the Schutte Emotional Intelligence Scale (SEIS) (Schutte et al., 1998) (table 2) and the short form of the Trait Emotional Intelligence Questionnaire (TEIQue-SF) (Petrides 2009) (table 3). The SEIS is a measure of ability EI that is understood to correlate mostly with intelligence (Schutte et al 1998). The TEIQue-SF measures trait EI, understood as related to dimensions of personality (Cooper & Petrides 2010). Demographic data and information about previous caring experience were also collected at this point. 'Social connection' was calculated by averaging response scores of the five items from the TEIQue-SF identified in table 1.

At the end of year 1, performance data were gathered for each student through the university data systems. All students were scheduled to complete six modules in total including assessment of performance in the practice learning environment. Clinical performance was not graded and was an integral part of two of the modules. It is therefore not possible to look at clinical performance separate to overall performance in the module, although a fail led to the student failing the module. As theory and practice are both required for nurses to attain the competencies required for registration, a measure of performance incorporating both is reasonable. Performance was calculated as the mean mark over the year per student. Data were also recorded on whether participants had withdrawn from their programme or interrupted their studies.

INSERT TABLE 2 HERE

INSERT TABLE 3 HERE

Ethics

Ethical approval was granted for the study by the research ethics committee within each of the HEIs. Participation was voluntary and informed consent sought at each point of data collection. Data linkage was enabled through unique identifier numbers to maintain anonymity. The data is held anonymously in a secure database.

Analytic plan

The performance data, data on withdrawal, previous caring experience, EI measures and social connection scores were input into SPSS version 21. Data were tested for normality and homogeneity of variance and then subject to parametric or non-parametric tests accordingly.

RESULTS

Data were obtained from 598 students in total: 443 adult students, 104 mental health and 51 midwifery students. Table 2 shows the gender balance.

INSERT TABLE 4 HERE

315 students had previous caring experience, 277 had not and 6 did not respond to the question. Figure 1 illustrates those who had previous caring experience against those who did not according to age band. There were no statistical differences between these two groups according to age.

INSERT FIGURE 1 HERE

538 students had results recorded for all six modules. Mean(SD) performance score for these students was 56.05(10)%. In line with established literature (McCarey et al 2007; Salamonson and Andrew 2006) Figure 2 shows that performance broadly improved with age in both previous caring and non-previous caring groups.

Those with caring experience had mostly gained it in care homes (50%) with a further 30% in hospital and the remaining 20% at home or other community venue. Length of caring experience ranged from 1 month to twenty years. 38 students withdrew from the course and a further 34 interrupted their studies during the first year. These students were excluded from the analyses of performance (hypotheses 1 & 2).

Mean (SD) SEIS score for the whole sample was 3.91(0.41). The scale had a high level of internal consistency, as determined by a Cronbach's alpha of 0.858. Mean (SD) TEIQue-SF score for the whole sample was 5.38 (0.58). The scale had a low level of internal consistency, as determined by a Cronbach's alpha of 0.422. Mean (SD) Social connection

factor was 6.24(0.8). This subscale also had a low level of internal consistency as determined by a Cronbach's alpha of 0.631. This means any results interpreting TEIQue-SF as a global measure of EI should be treated with caution. This does not apply to the social connection factor however according to Nunally (1998). That is, whilst conventional wisdom suggests values of Cronbach alpha less than 0.7 should be treated with caution, values over 0.6 are considered acceptable for many authors, especially where the sample size is large (Bacon 2004) as is the case here.

INSERT FIGURE 2 HERE

Analysis

The following hypotheses were tested:

1. Previous caring experience will lead to better performance

The assumption of normality for performance scores was satisfied for both the previous caring experience group and the no previous caring experience group, as assessed by Shapiro-Wilk's test ($p > .05$). An independent-samples t-test was run to determine if there were differences in performance between those with and without previous caring experience. Those *without* previous caring experience scored higher (57.33 ± 11.38) than those with previous caring experience (54.87 ± 11.19), a statistically significant difference of 2.47 (95% CI, 0.54 to 4.38), $t(533) = 2.52$, $p = .012$. Previous caring experience did not lead to better performance at end of year one.

INSERT FIGURE 3 HERE

2. Emotional intelligence will be associated with performance

Responses to performance and SEIS were normally distributed, but TEIQue-SF scores were not. Preliminary analysis showed the relationship between SEIS and performance to be dissociated, as assessed by visual inspection of a scatterplot. This was confirmed with Pearson's product moment correlation. There was no correlation between performance and SEIS scores, $r(423) = .037$, $p = 0.44$.

Preliminary analysis also showed the relationship between TEIQue-SF and performance to be dissociated, as assessed by visual inspection of a scatterplot. Because of the non normal distribution of the TEIQue-SF data a Spearman's rank-order correlation was run to assess the relationship between performance and TEIQue-SF. There was no correlation, $r_s(435) = .005$, $p = 0.91$.

3. Social connection scores will predict withdrawal/interruption from the course

The assumption of normality for social connection scores was satisfied in the larger group of nurses remaining on the course, but not for those withdrawing from the course. A Mann-Whitney U test was therefore run to determine if there were differences in social connection scores between those who withdrew/interrupted the course (n=72) and those who remained (N=526). Distributions of the social connection scores for the two groups were not similar, as assessed by visual inspection. Social connection scores for those withdrawing from the course (mean rank = 249) and those remaining on the course (mean rank = 304.75) were statistically significantly different, $U = 15300$, $z = -2.61$, $p < 0.009$. Box and whisker plot in figure 4 illustrates the mean and range of scores in each category.

INSERT FIGURE 4 HERE

Figure 4 is a useful representation of the data because it shows that whilst there is a significant difference between the groups caution should be maintained when attempting to generalize from the finding. There are two related reasons for this:

1. The relatively low internal reliability of the social connection subscale as already discussed
2. There are many students still on their respective programmes scoring what appear to be worryingly low scores on this measure. For example participant 558 scored the minimum possible on the social connection measure yet has performed around the mean at end of year one.

In conclusion, the social connection factor is clearly worthy of further exploration but it is too early to recommend its use in isolation in identifying any student that may be at risk of withdrawal in year 1.

DISCUSSION

This study has shown that those with previous caring experience performed worse than their counterparts with no such experience. The reasons for this finding are likely to be complex. For example those with caring experience in the sample had mostly gained it in care homes (approx. 50%) with a further 30% in hospital and the remaining 20% at home or other community venue. As such the definition of 'caring experience' was broad, however the large sample (n=315) of those with previous caring experience, and the fact that most (80%) had gained their caring experience in a formal care setting would indicate that this 'caring' experience might be comparable to that undertaken by those on the HEE pre-nursing experience pilots.

Length of previous caring experience ranged from one month to twenty years and may therefore be more variable than that in the HEE pilots making comparison problematic. However, whilst the Government has recommended a period of up to one year pre-nursing experience there is no evidence to support this. Further exploration of any relationship

between length of experience and impact on performance might be merited. However as our findings indicate that generally previous caring experience is not related to performance this would seem a moot point.

There was no statistically significant difference in age profiles between the groups with and without caring experience. It cannot therefore be assumed that the caring experience group represent those who are more mature and have been out of education for longer; a commonly assumed explanation for poor performance. There is evidence however, that mature nursing students (McCarey et al 2007) and non-traditional female students (Carney-Crompton and Tan 2002) perform better academically than their younger or more traditional counterparts. Thus, the explanation for the statistically significant difference in performance between the two groups would seem at least to support the idea that having previous caring experience makes no difference to student performance in year 1, and may actually prove detrimental.

Qualitative exploration of how students have assimilated the knowledge gained from previous caring experience into their understanding of how nurses should care for patients would enable us to gain a sense of the impact of the form, length and quality of that experience. Such knowledge would facilitate the development of more specific guidance for potential students and provide more evidence to HEIs upon which they might base their selection processes.

The literature reporting associations between EI and Grade Point Average (Codier & Odell 2014; Por et al 2011) as well as EI and nursing performance (Beauvais et al 2011; Codier et al 2008) supports the hypothesis that EI would be positively correlated with performance (an amalgam of academic and clinical practice) in our cohort. However, our finding that EI scores were not associated with performance are contrary to these previous findings. In particular, if EI is a form of general intelligence, then it would be expected that EI as measured by the SEIS would have been associated with performance, as this measure is based on a cognitive model (Schutte et al 1998). However, whilst there was no association, suggesting that baseline EI scores were not predictive of this cohort's performance in year 1 of their programme, it remains to be seen whether EI will become predictive at any future point in this longitudinal study.

The finding that a specific factor, rather than total EI score, within the TEIQue-SF was associated with performance is consistent with the literature (cf Rego et al 2010; Montes Borges and Augusto 2007; Montes Borges and Augusto Landa 2014). The psychometric issue is that EI as measured by these tools may be too broad a construct (Mayer et al 2008) to have any utility in nursing recruitment, whereas a relevant *subset* of the construct may. The poor internal consistency of the whole scale contrasted with the acceptable consistency of the social connection factor supports this view. The 'social connection' factor was, as hypothesised, a likely predictor of withdrawal from the programme, whereas low total TEIQue-SF scores were not. When reflecting on the five questions making up this factor (table 1) it seems clear that these items would be associated with the social aspect of nursing, and that poor scores on this factor would be associated with poorer engagement with the social nature of nursing. This might go some way to explaining the finding that

many of those who leave nursing programmes at the end of their first year give wrong career choice as a reason (Waters 2008).

Caution should immediately be sounded however, as it is unclear if this significant difference in social connection scores translates to any meaningful *practical* difference (Goldacre 2009). The social connection factor is a new finding in the emotional intelligence literature, and differences in scores have yet to be explored. As mentioned in the analysis there are some participants in our cohort who scored very low on this factor yet highly on performance. Finally, we have yet to establish the reasons for people withdrawing from the course in this part of the study. However, at the population level the finding that lower scores on the social connection factor were associated with withdrawal is an important element to explore further.

The next phase of this prospective longitudinal study is to repeat the EI measures at the end of year 3 and to obtain further measures of performance and retention to better understand the long-term relationships between these variables. Qualitative exploration of issues relating to previous experience and performance, as well as other facets of the student nurse experience, will enable us to develop a more detailed understanding of the complexity of issues relating to student performance, retention, EI, and previous experience. It is likely that there will be no simple method of identifying and thereby selecting for 'better' nurses. However, studies like this are essential if resources are to be targeted towards evidence-based interventions.

CONCLUSION

The findings presented here indicate that at this point in their programme, previous caring experience was associated with poorer academic and clinical performance. Further investigation into the impact of context, length and quality of the previous caring experience would provide a greater insight into what is most likely a complex relationship between previous caring experience and student nurse performance. Whilst total EI scores were not associated with student performance, the association of the social connection factor with withdrawal from the programme is of interest. Again, further investigation of this particular factor in relation to both performance and retention across the remaining two years of the programme will provide data upon which decisions around the importance of this factor in student nurse selection might be based.

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Table 1. The five items of the social connection factor

5. I generally don't find life enjoyable.
12. On the whole I have a gloomy perspective on most things.
13. Those close to me often complain I don't treat them right.
16. I often find it difficult to show my affection to those close to me.
28. I find it difficult to bond well even with those close to me.

Table 2: Schutte et al (1998) Emotional Intelligence Scale

Please complete this questionnaire and assess how you generally feel about the statements below. There are no right or wrong answers. The answers should be based on your personal experiences. Please circle the number that best reflects your experience. For instance, 1 reflects that you strongly disagree, whereas 5 indicates that you strongly agree with the statement. You can also circle any number between 1 and 5 reflecting various degrees of how strongly you agree or disagree with the statement.

Rating scale: 1 = Strongly Disagree - 5 = Strongly Agree

1.	I know when to speak about my personal problems to others	1	2	3	4	5
2.	When I am faced with obstacles, I remember times I faced similar obstacles and overcame them	1	2	3	4	5
3.	I expect that I will do well on most things I try	1	2	3	4	5
4.	Other people find it easy to confide in me	1	2	3	4	5
5.	I find it hard to understand the non-verbal messages of other people	1	2	3	4	5
6.	Some of the major events of my life have led me to re-evaluate what is important and not important	1	2	3	4	5
7.	When my mood changes, I see new possibilities	1	2	3	4	5
8.	Emotions are one of the things that make my life worth living	1	2	3	4	5
9.	I am aware of my emotions as I experience them	1	2	3	4	5
10.	I expect good things to happen	1	2	3	4	5
11.	I like to share my emotions with others	1	2	3	4	5
12.	When I experience a positive emotion, I know how to make it last	1	2	3	4	5
13.	I arrange events others enjoy	1	2	3	4	5
14.	I seek out activities that make me happy	1	2	3	4	5
15.	I am aware of the non-verbal messages I send to others	1	2	3	4	5
16.	I present myself in a way that makes a good impression on others	1	2	3	4	5
17.	When I am in a positive mood, solving problems is easy for me	1	2	3	4	5
18.	By looking at their facial expressions, I recognize the emotions people are experiencing	1	2	3	4	5
19.	I know why my emotions change	1	2	3	4	5
20.	When I am in a positive mood, I am able to come up with new ideas	1	2	3	4	5
21.	I have control over my emotions	1	2	3	4	5
22.	I easily recognize my emotions as I experience them	1	2	3	4	5
23.	I motivate myself by imagining a good outcome to tasks I take on	1	2	3	4	5
24.	I compliment others when they have done something well	1	2	3	4	5
25.	I am aware of the non-verbal messages other people send	1	2	3	4	5
26.	When another person tells me about an important event in his or her life, I almost feel as though I have experienced this event myself	1	2	3	4	5
27.	When I feel a change in emotions, I tend to come up with new ideas	1	2	3	4	5
28.	When I am faced with a challenge, I give up because I believe I will fail	1	2	3	4	5
29.	I know what other people are feeling just by looking at them	1	2	3	4	5
30.	I help other people feel better when they are down	1	2	3	4	5
31.	I use good moods to help myself keep trying in the face of obstacles	1	2	3	4	5
32.	I can tell how people are feeling by listening to the tone of their voice	1	2	3	4	5
33.	It is difficult for me to understand why people feel the way they do	1	2	3	4	5

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Table 3: The TEIQue-SF

TEIQue-SF

Instructions: Please answer each statement below by putting a circle around the number that best reflects your degree of agreement or disagreement with that statement. Do not think too long about the exact meaning of the statements. Work quickly and try to answer as accurately as possible. There are no right or wrong answers. There are seven possible responses to each statement ranging from 'Completely Disagree' (number 1) to 'Completely Agree' (number 7).

1 . . . . . 2 . . . . . 3 . . . . . 4 . . . . . 5 . . . . . 6 7
Completely Disagree **Completely Agree**

1. Expressing my emotions with words is not a problem for me.	1	2	3	4	5	6	7
2. I often find it difficult to see things from another person's viewpoint.	1	2	3	4	5	6	7
3. On the whole, I'm a highly motivated person.	1	2	3	4	5	6	7
4. I usually find it difficult to regulate my emotions.	1	2	3	4	5	6	7
5. I generally don't find life enjoyable.	1	2	3	4	5	6	7
6. I can deal effectively with people.	1	2	3	4	5	6	7
7. I tend to change my mind frequently.	1	2	3	4	5	6	7
8. Many times, I can't figure out what emotion I'm feeling.	1	2	3	4	5	6	7
9. I feel that I have a number of good qualities.	1	2	3	4	5	6	7
10. I often find it difficult to stand up for my rights.	1	2	3	4	5	6	7
11. I'm usually able to influence the way other people feel.	1	2	3	4	5	6	7
12. On the whole, I have a gloomy perspective on most things.	1	2	3	4	5	6	7
13. Those close to me often complain that I don't treat them right.	1	2	3	4	5	6	7
14. I often find it difficult to adjust my life according to the circumstances.	1	2	3	4	5	6	7
15. On the whole, I'm able to deal with stress.	1	2	3	4	5	6	7
16. I often find it difficult to show my affection to those close to me.	1	2	3	4	5	6	7
17. I'm normally able to "get into someone's shoes" and experience their emotions.	1	2	3	4	5	6	7
18. I normally find it difficult to keep myself motivated.	1	2	3	4	5	6	7
19. I'm usually able to find ways to control my emotions when I want to.	1	2	3	4	5	6	7
20. On the whole, I'm pleased with my life.	1	2	3	4	5	6	7
21. I would describe myself as a good negotiator.	1	2	3	4	5	6	7
22. I tend to get involved in things I later wish I could get out of.	1	2	3	4	5	6	7
23. I often pause and think about my feelings.	1	2	3	4	5	6	7
24. I believe I'm full of personal strengths.	1	2	3	4	5	6	7
25. I tend to "back down" even if I know I'm right.	1	2	3	4	5	6	7
26. I don't seem to have any power at all over other people's feelings.	1	2	3	4	5	6	7
27. I generally believe that things will work out fine in my life.	1	2	3	4	5	6	7
28. I find it difficult to bond well even with those close to me.	1	2	3	4	5	6	7
29. Generally, I'm able to adapt to new environments.	1	2	3	4	5	6	7
30. Others admire me for being relaxed.	1	2	3	4	5	6	7

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Table 4: Gender by programme (2 people did not record gender)

Table 4. Gender by Programme

		Programme			
		Adult	Mental health	Midwifery	Total
Gender	male	40	26	0	66
	female	402	77	51	530
Total		442	103	51	596

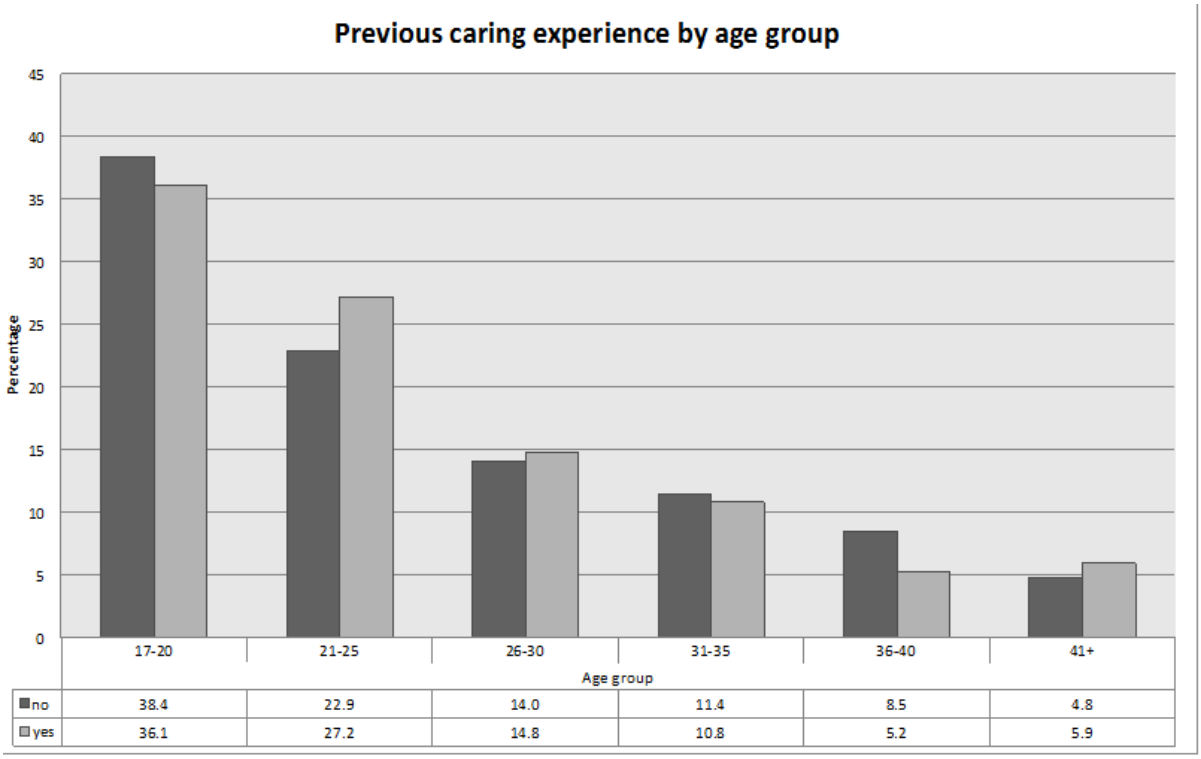

Figure 1. Comparison of whether person had previous caring experience or not according to age.

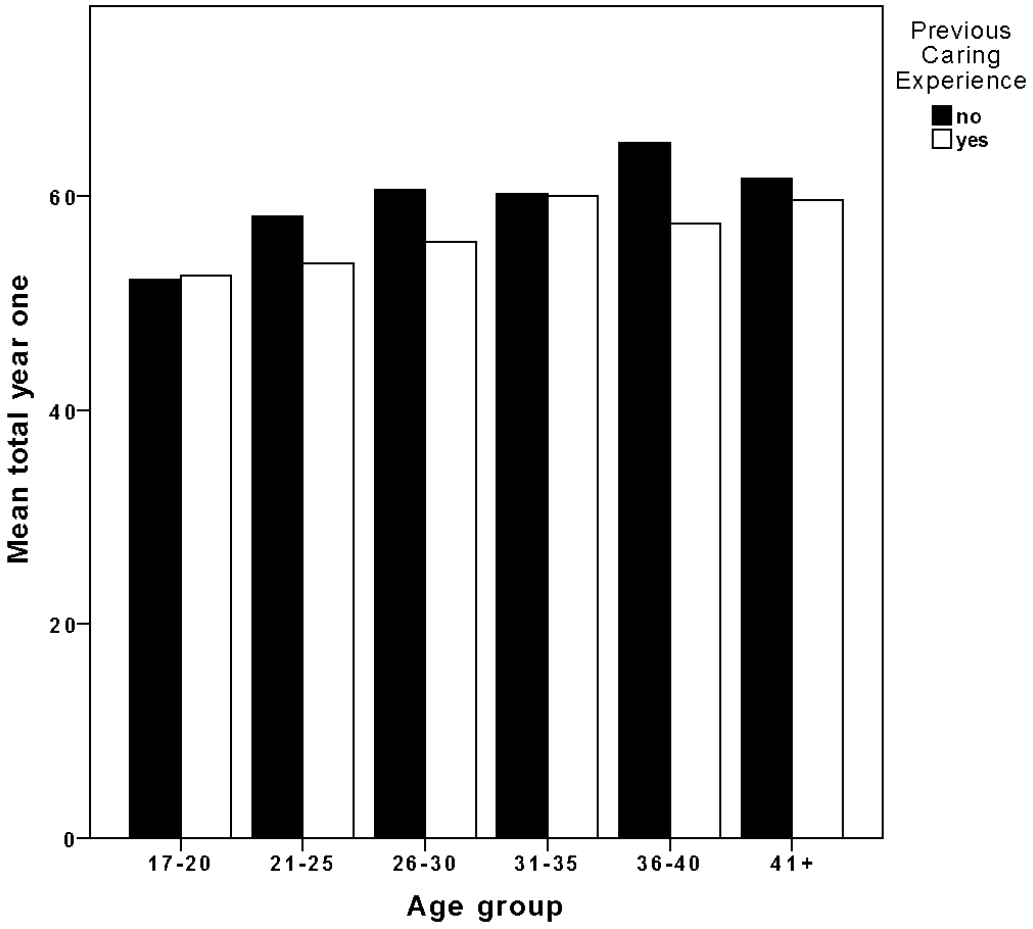

Figure 2. Clustered bar chart of mean performance scores by age group and previous caring experience

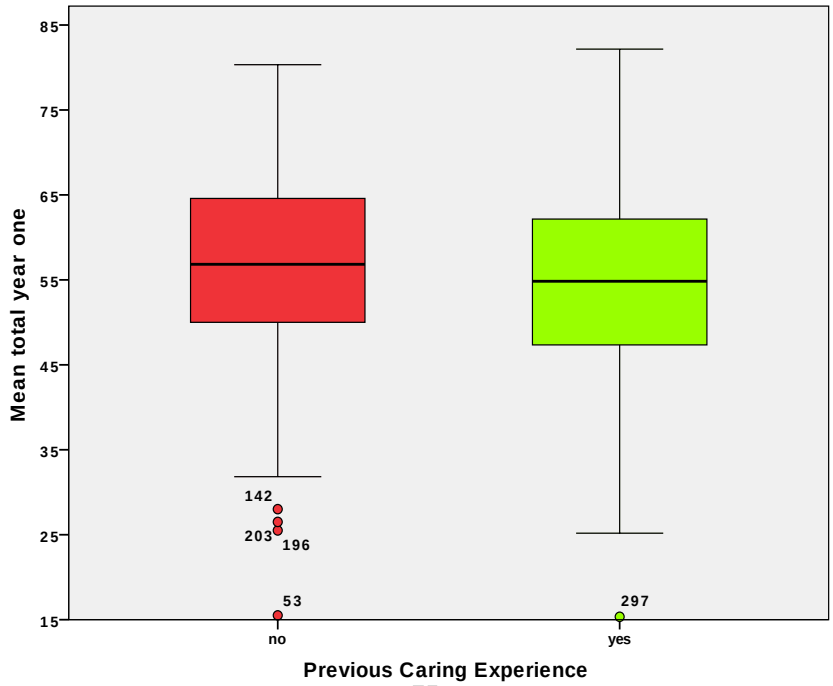

Figure 3. Box and whisker plots of performance data categorised by previous caring experience

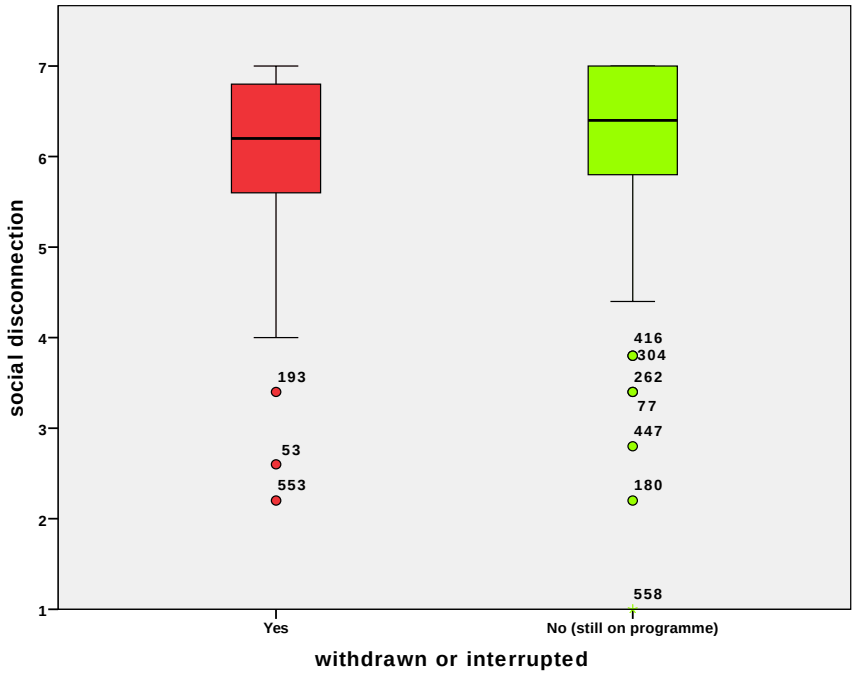

Figure 4. Box and whisker plot of social connection scores categorized by whether students have withdrawn/interrupted (left) or remained on their programme (right).

Highlights

- Previous caring experience was associated with poorer performance.
- Emotional intelligence scores did not correlate with first year performance.
- Social Connection scores are related to withdrawals from the programme.