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Career motivation of 1st year nursing and midwifery students: A cross-sectional study

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Abstract

Aim/objective: This paper presents findings from a cross-sectional study into the motivational factors of students who chose nursing and midwifery as a career.
Background: 189 students from the University of Bedfordshire (UoB) and 223 students from Canterbury Christ Church University (CCCU) completed a questionnaire at the start of their studies in 2018. The findings were generated from the first stage of the Placement, Impact, Experience and Destination (PIED) study into student belongingness on placement and the influence of practice on the first career destination of newly qualified nurses and midwives.
Design: An in-class questionnaire was administered to 1st year pre-registration adult, child and mental health nursing and midwifery students to identify the intrinsic and extrinsic factors that influenced their motivation to choose nursing or midwifery as a career.
Methods: A mix methods study design was adopted for the PIED study where participants completed a survey that collected quantitative and qualitative data and administered during the course induction period.
Results: Motivation scores were found to be high in both cohorts, with students at both sites endorsing intrinsic motivational factors over extrinsic at statistically significant levels. The strongest intrinsic factors appeared to be a desire to help and care for people and play a useful role in society, whereas the strongest extrinsic factors were career stability and the ability to work in different regions and countries.
Conclusions: The study suggests that the influence of family and friends continues to exert a strong intrinsic motivational influence on the career choices of students, particularly those under the age of 25. Identifying the motivational factors of first year nursing and midwifery students presents employers with an opportunity to tailor strategies to recruit apprentices, enable placement partners to enculturate prospective employees into the workforce and understand the relationship between extrinsic factors and practice learning to successfully recruit graduates.

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Introduction

The Placement, Impact, Experience and Destination (PIED) study is a non-funded, collaborative research project undertaken by two universities to explore the influence that clinical placements and students' expressed level of belongingness have on the career aspirations of a cohort of nursing and midwifery students who commenced their studies in September 2018. The research team surveyed students at the commencement of their courses (time 1) and at the end of each academic year (time 2, 3 & 4) to identify the relationship between levels of belongingness within practice and choice of clinical speciality.

This paper presents findings from the initial survey (time 1) where nursing and midwifery students were asked to share details of their motivation to be a nurse or midwife.

Background

There are a wide range of intrinsic and extrinsic factors that influence students to choose nursing and midwifery as a career, ranging from personally held values, beliefs and experiences to perceptions shaped by society and amplified by the media (Beck, 2000; Mooney et al., 2008; Pool, 2012; Stanley et al., 2016; Cullen et al., 2016). Intrinsic motivation is defined as engagement in an activity that possesses inherent satisfaction, where a person's volition is characterised by the measure of reward or challenge experienced within the action. Extrinsic motivation is where an individual experiences an outward pressure or reward arising from engagement in an activity that may only hold instrumental value (Ryan & Deci, 2000).

A desire to help others and personal fulfilment arising from caring has been identified as strong intrinsic factors influenced by prior work experience (Beck, 2000). Mooney et al.'s, (2008) study into why non-mature undergraduate students (those starting university or college after full-time education, typically under the age of 21) chose nursing as a career cited prior knowledge of the profession obtained from family, although societal norms regarding gender exerted a barrier for some male applicants. Similarly, Pool's (2012) study highlighted that both males and females voiced negative stereotyped images of men and women in nursing. Participants felt that such images were linked to perceptions of which careers were deemed acceptable for men and women, which suggests that gender stereotypes exert an influence on recruitment to nursing (Teresa-Morales et al., 2022). Kneipp et al. (2014) utilised group-mentoring sessions attended by nursing students who revealed the impact of inaccurate media images and prejudices related to nursing requires a multipronged effort to counter misconceptions and prejudices, in order to build a more diverse workforce. Harding's (2009) study into men choosing nursing as a career cited amongst other formative experiences, a strong vocational call that underpinned a need to be of use to humanity allied to a strong sense of personal fulfilment. In a study by Stanley et al. (2016), there was broad agreement among respondents that the media played a significant role in perpetuating gendered misperceptions which discouraged men from choosing nursing as a career.

In addition to gender, cultural factors can also influence prospective applicants to nursing and midwifery. Ali et al.'s (2018) study into the perceptions of prospective nursing and midwifery students of south Asian heritage, demonstrated the importance of improving knowledge, perceptions and the status of nursing and midwifery through targeted interventions designed collaboratively with schools and colleges to address contextual barriers impacting on application, recruitment and the selection of students.

Price et al.'s. (2013) study explored the career choice experiences and professional expectations of Millennial nurses (born after 1980) where participants' stories were framed by their understanding of nursing as a virtuous, honourable and noble profession. The desire to make a difference in people's lives and 'help others' were at the forefront of participants' storytelling with descriptions that emphasized personal virtues and validated why they were a 'good' fit for the profession.

The PIED study has also focused on the motivations to care of midwifery students. Carolan & Kruger's (2011) study into the motivations and beliefs of students commencing their studies demonstrated that students held idealised views regarding midwifery practice as well as altruism and a strong concern to safeguard the experience of birthing women. The age range of participants within the PIED study suggested that both universities recruited the largest proportion of students from the 18-24 age group. Cullen et al.'s (2016) Australian study explored the motivations of young people aged less than 21 years and their motivation to choose midwifery. Witnessing midwifery, hearing birth stories, reality TV and an opportunity to work with babies influenced social discourses and their perception of childbirth and the role of a midwife. Sim-Sim et al.'s (2022) study concluded that student's motivation for midwifery was rooted in childhood leading to a decision that was characterised by students having to overcome work and family obstacles.

The project team were interested in the intrinsic and extrinsic motivational factors of 1st year students who had chosen to study nursing or midwifery and how they compared between the two universities to inform support strategies for the support and retention of students within practice. The primary aim of the research was to identify what intrinsic and extrinsic factors motivate students to choose nursing and midwifery as a career and used a cross-sectional research design in contrast to previous studies.

Methodology

A mixed methods design was adopted for the overall study as the survey questionnaires obtained quantitative (demographic information) and qualitative data (experience and levels of belongingness on placement); the latter to be reported in a forthcoming paper featuring a validated questionnaire. Our aim was to utilise a design based on complementarity (Plano Clark & Ivankova, 2016), in order to obtain conclusions from findings from two locations that were sufficiently meaningful, given the complexity of the phenomena of career decision-making. A validated questionnaire (Kinman et al., 2010) was used for the first data collection stage of the study (time 1).

Ethical approval for the study was granted by the University of Bedfordshire (UoB, HEI 1) Institute for Health Research (IHREC873) and Canterbury Christ Church University (CCCU, HEI 2) Faculty Ethics Panel (18H&W23C).

Results

All BSc (Hons) pre-registration nursing and BSc (Hons) midwifery students who commenced their studies in 2018 (235 adult, child, mental health nursing; 64 midwifery students from UoB (HEI 1); and 318 adult, child, mental health nursing, 55 midwifery students from CCCU (HEI 2) were invited to take part in this study and received a participant information sheet and consent form in an announcement placed on both universities' virtual learning environments. A total of 189 participants were recruited from UoB (HEI 1) and 223 participants from CCCU (HEI 2). Participants were asked to disclose their gender (Table 1), professional study pathway (Table 2) and age (Table 3) via the completion of a paper questionnaire.

Table 1:

Gender

Gender	HEI 1 (UoB)		HEI 2 (CCCU)	
	Frequency	Percent	Frequency	Percent
Female	167	88	201	90
Male	19	10	18	8
Not stated	3	2	4	2
Total	189	100	223	100

Table 2:

Professional Pathway

Pathway	HEI 1 (UoB)		HEI 2 (CCCU)	
	Frequency	Percent	Frequency	Percent
Adult nursing	77	41	103	46
Child nursing	18	9.5	47	21
Mental health nursing	39	20.5	20	9
Midwifery	55	29	53	24
Total	189	100	223	100

Table 3:

Age

Age	HEI 1 (UoB)		HEI 2 (CCCU)	
	Frequency	Percent	Frequency	Percent
18-24	72	37.9	107	47.9
25-31	35	18.4	27	12.1
32-37	18	9.5	26	11.6
38-44	27	14.2	20	9
45-51	9	4.7	15	6.7
52+	2	1.1	0	0
Not stated	26	13.7	28	12.5
Total	189	99.5	223	99.8

Questionnaires were distributed to all participants during the induction period of their respective courses, prior to their first placement, and completed on campus once participants had given consent. The questionnaire explored participants' motivation to choose nursing or midwifery as their chosen career. A 14-item measurement of motivation was used (Kinman et al., 2010) with Likert scale responses ranging from 1 (strongly disagree) to 5 (strongly agree) against six intrinsic (I) and eight extrinsic (E) statements (Appendix 1). This measurement enabled the research team to identify high scores, which indicate a stronger motivation to care from which a mean was calculated.

Data from the paper questionnaires were analysed using the statistical package for the social sciences (SPSS version 26, IBM, Armonk, NY, USA) with an alpha level of $P<0.05$ used for statistical significance. In order to compare the scores from the different samples of student participants, a series of paired and independent t-tests were undertaken (Appendix 2). Data presented in this paper are mean ± standard deviation, unless otherwise stated.

University of Bedfordshire (HEI 1)

The time 1 findings for the overall cohort indicated that global mean scores for motivation ranged from 2.50 to 5.0 with a cohort mean score of 4.52 (.42). The mean score for intrinsic motivation was 4.72 (.46), and extrinsic was 4.40 (.53). A paired t test revealed that participants were more likely to endorse intrinsic motivating factors, such as helping and caring for people, providing a useful role for society and gaining intellectual stimulation, over extrinsic factors such as pay, qualifications and career stability ($t(188)= 7.76$, $p<.001$), $d = .56$.

Canterbury Christ Church University (HEI 2)

The cohort mean score for motivation ranged individually from 2.67 to 5.0 and the cohort mean was .425 (.47). The mean score for intrinsic motivation was 4.32 (.53), and extrinsic was 4.19 (53). A paired t test revealed that participants were more likely to endorse intrinsic motivating factors, such as helping and caring for people, providing a useful role for society and gaining intellectual stimulation, over extrinsic factors such as pay, qualifications and career stability ($t(221)= 4.12$, $p<.001$), $d = .276$.

Motivation to care

Global mean scores for motivation for the two universities (Table 4) were compared using an independent t test. There was homogeneity of variances for scores, as assessed by Levene's test for equality of variances (p = .068). There was a statistically significant difference in mean scores, t(409) = 6.16, p<.001.

Table 4:

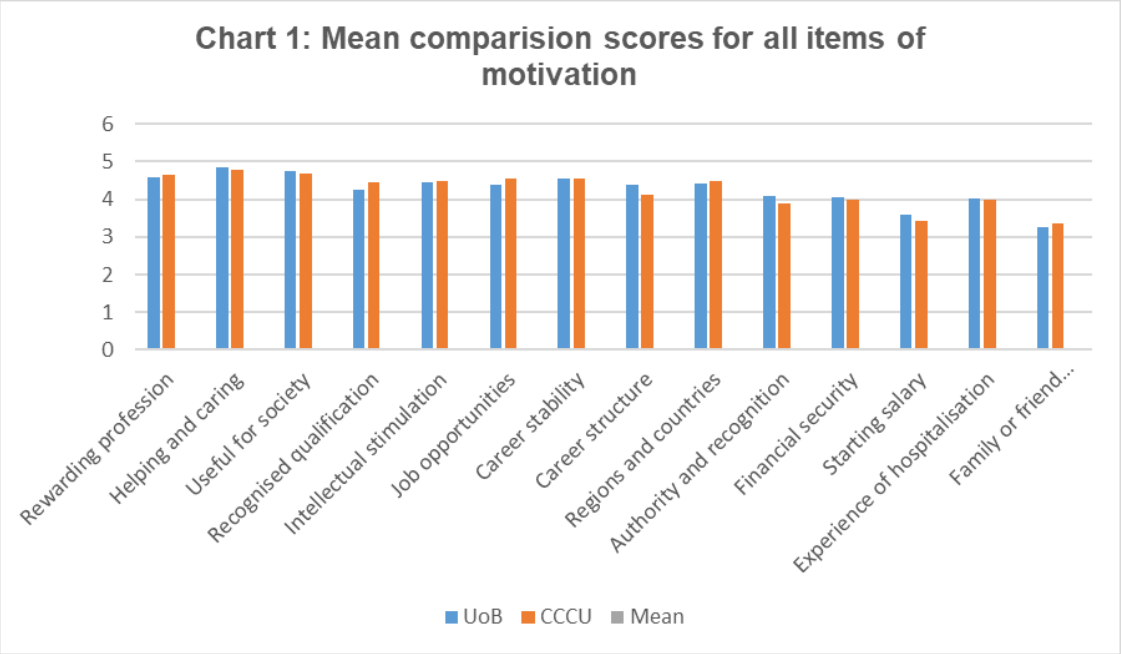
Motivation Scores

	Range Global	Mean Global	Mean Extrinsic	Mean Intrinsic
UoB (HEI 1)	2.50 - 5.0	4.52 (.42)	4.40 (.53)	4.72 (.46)
CCCU (HEI 2)	2.79 - 5.0	.425 (.47)	4.19 (.53)	4.32 (.53)

The mean scores for both intrinsic and extrinsic motivation were remarkably similar for students from both universities as illustrated in Chart 1.

Chart 1:

Mean comparison scores for all items of motivation



Descriptive statistics of all motivating factors including minimum, maximum and standard deviation can be found in Tables 5 & 6 below. The ranking of all motivational factors for both universities can be found in Table 7 and show that the joint highest intrinsic motivational factor was the influence of family or friends who were either a nurse or midwife, followed by starting salary with experience of hospitalisation as respective extrinsic and intrinsic motivational factors to care.

Table 5:

UoB (HEI 1) Descriptive statistics (all motivating factors)

	N	Minimum	Maximum	Mean	Std. Deviation
Rewarding profession	189	1	5	4.59	.764
Helping and caring	188	1	5	4.84	.495
Useful for society	189	1	5	4.75	.525
Recognised qualification	189	1	5	4.25	.943
Intellectual stimulation	189	2	5	4.46	.656
Job opportunities	189	1	5	4.37	.869
Career stability	189	1	5	4.54	.688
Career structure	189	3	5	4.38	.671
Regions and countries	189	1	5	4.42	.799
Authority and recognition	189	1	5	4.07	.905
Financial security	189	1	5	4.04	.856
Starting salary	189	1	5	3.59	1.051
Experience of hospitalisation	188	1	5	4.03	1.116
Family or friend nurse/midwife	188	1	5	3.27	1.580
Valid N (list wise)	187				

Table 6:

CCCU (HEI 2) descriptive statistics (all motivating factors)

	N	Minimum	Maximum	Mean	Std. Deviation
Rewarding Profession	221	3	5	4.64	.534
Helping and Caring	222	2	5	4.78	.477
Useful for Society	222	1	5	4.68	.619
Recognised Qualification	221	1	5	4.46	.777
Intellectual Stimulation	222	2	5	4.47	.657
Job Opportunities	222	2	5	4.56	.675
Career Stability	222	2	5	4.55	.648
Career Structure	221	1	5	4.11	.862
Regions and Countries	221	1	5	4.47	.784
Authority and Recognition	222	1	5	3.90	1.006
Financial Security	218	1	5	4.00	.913
Starting Salary	217	1	5	3.41	.992
Experience of Hospitalisation	216	1	5	3.98	1.157
Family or Friend Nurse or Midwife	216	1	5	3.37	1.595
Valid N (list wise)	213				

Table 7:

Ranking of intrinsic (I) and extrinsic (E) factors *lowest to **highest (UoB HEI 1 & CCCU HEI 2)

Factors	HEI 1 Ranked	HEI 2 Ranked
Rewarding profession (I)	4.59 = 3	4.64 = 3
Helping and caring (I)	*4.84 = 1	*4.78 = 1
Useful for society (E)	4.75= 2	4.68 = 2
Recognised qualification (I)	4.25 = 9	4.46 = 8
Intellectual stimulation (I)	4.46 = 5	4.47 = 6
Job opportunities (E)	4.37= 8	4.56 = 4
Career stability (E)	4.54 = 4	4.55 = 5
Career structure (E)	4.38 = 7	4.11 = 9
Regions and countries (E)	4.42 = 6	4.47 = 6
Authority and recognition (I)	4.07 = 10	3.90 = 12
Financial security (E)	4.04= 11	4.00 = 10
Starting salary (E)	3.59= 13	3.41 = 13
Experience of hospitalisation (I)	4.03 = 12	3.98 = 11
Family or friend nurse/midwife (I)	**3.27 = 14	**3.37 = 14

Discussion

Students at both universities scored highest on their global motivation to care. Those at UoB (HEI 1) were found to be significantly higher than CCCU (HEI 2), although there was only a 0.25 difference between scores. Both professions appear to still attract individuals that are highly motivated to care as the global scores were found to be high in both cohorts. McLaughlin et al., (2010) highlighted the importance of understanding which factors motivate successful nursing students to not only commence, but complete their studies as these factors can inform campaigns to recruit applicants with the greatest chance of graduation. However, motivation to care is subject to change as students' progress through their studies. Sharples (2018) found that positive placement experiences were characterised by nursing students who 'found their niche' within a clinical area where they felt they belonged. Consequently, they were more likely to choose the clinical speciality on graduation. As motivation to nurse was a significant contributory factor in course completion, Sharples argued that educators can better support and sustain students towards the successful completion of their course by identifying what motivates them. Similarly, McLachlin et al. (2010) posited that motivational factors are open to change over time in comparison to factors that may have influenced applicants to enter care.

The influence of family and friends was the highest motivational factor in the PIED study in contrast to McLachlin et al's (2010) study, which showed that the influence of family and family was mixed, particularly when concerns were expressed regarding status and income. At present, this does not seem to deter people from wanting to commence a career nursing and midwifery. The influence of family and friends as the strongest intrinsic factor may explain why students draw on support from parents and siblings when experiencing episodes of conflict or incivility from clinical staff whilst in placement.

The two waves of the Covid-19 pandemic coincided with the second and final year of study of students who took part in the PIED study, with coronavirus infection based on the reproduction (R) rate peaking between March 2020 and May 2021 in England (Office for National Statistics [ONS], 2021). Uçan

Yamaç & Cetinkaya (2021) explored factors affecting career choice of midwifery of students during the Covid-19 pandemic and suggested that society had developed more positive perspectives of healthcare professions. Students regarded midwifery as the oldest profession and their career choice was said to reflect their personal qualities. A report by the University and Colleges Admissions Service (UCAS) (2021) stated that the number of 18-year olds choosing to study nursing in England had increased by 38%, with an accompanying increase of 43% in the number of students with a confirmed place to study nursing. The gender gap for applicants remained unchanged with women more than 9 times more likely than men to choose and secure a place on nursing courses, as reflected in the PIED study (see Table 1). However, the impact of the pandemic peaked as total number of individuals applying to study nursing from autumn 2023 stood at 33 570, which represented a drop of more than 7600 compared to 2022, equating to a decrease of 18.5% (UCAS, 2023). Therefore, there is an urgent need for research to uncover the latest reduction in applications for nursing in addition to the persistently low interest in nursing and midwifery amongst male applicants.

Health and social care services within the United Kingdom are now being delivered and planned within a post pandemic era that has led to a review of the workforce development needs within the National Health Service (NHS). The NHS Long Term Workforce Plan (NHS England, 2023) has identified training, staff retention and reform as priority areas in order to significantly increasing education and training to record levels; keep and support staff throughout their careers; and improve productivity through skills development and changes to education, training and the widening of apprenticeships.

Although time 1 focused on a large sample of students from both universities, it was not possible to undertake a comparative analysis between nursing students based on their professional pathway due to the small sizes of child and mental health nursing students that were recruited. Therefore, the sample which comprises of nursing and midwifery students lacked homogeneity.

Conclusion

The results from both universities were remarkably similar despite the differences in the two institutions; one with a large placement footprint stretching from Thames Valley to the east of England (UoB HEI 1) in comparison with CCCU (HEI 2) located within a more densely populated area of south east England with a more defined placement area. A significant factor within both study cohorts was the relatively large proportion of students recruited under the age of 24 and the extent to which the career motivation of applicants is best understood particularly within the context of intrinsic factors, which corresponds with other studies (Mooney et al., 2008; McLaughlin et al., 2010; Sharples, 2018). Both universities recruited a small number of male students, which appears to present an enduring priority for universities to diversity their recruitment strategies in order to increase applications from male applicants. The identification of the motivational factors of newly recruited nursing and midwifery students provides practice partners and education staff with important information that can assist in the management of student expectations, particularly when entering practice for the first time. Asking students what motivated them to become a nurse or midwife when starting a new placement, or what motivations they have to place learning at the centre of care might be useful for Practice Supervisors and Practice Assessors seeking to identify and enhance students' motivation.

The influence of family and friends as the strongest intrinsic factor, continues to be significant despite the large distribution of students from across age ranges over the age of 25. Asking students how their expectations have changed since starting their placement and what would motivate them to apply for a post in the department might prove useful for managers in order to inform local recruitment strategies, as well as improving the quality of the learning and the working environment.

In the light of the economic effects of the Covid 19 pandemic and other geopolitical tensions, it would be interesting to see whether extrinsic factors such as starting salary and financial security exert an influence on recruitment patterns to nursing and midwifery. Additionally, the impact of media representation of healthcare professionals during the pandemic on the career intentions of men and nursing would present another research opportunity. The introduction of the NHS Workforce Long Term Plan (2023) aims to increase nursing and midwifery training places to around 58,000 by 2031/32. It is hoped that this will be

achieved with an increase in apprenticeships for nurses from 9 to 20% by 2028/29 (NHS England, 2023). It could be argued that the perceptions of family and friends alongside other narratives regarding the value of apprenticeships (Ryan & Lorinc, 2018) will continue to influence the expansion of the nursing and midwifery workforce; particularly amongst non-mature potential applicants.

The research team look forward to presenting study findings from time 2, 3 & 4; in particular, to answer to what extent motivation factors change over time.

Acknowledgement

Please note that the corresponding author was employed at the UoB (HEI 1) at the time of the research.

Ethical Approval

Ethical approval for the study was granted by the University of Bedfordshire (UoB, HEI 1) Institute for Health Research (IHREC873) and Canterbury Christ Church University (CCCU, HEI 2) Faculty Ethics Panel (18H&W23C).

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Appendix 1: Motivation to be a nurse/midwife (intrinsic & extrinsic)

1. It is a rewarding profession (I)
2. It is a profession where you help and care for people (I)
3. It is a profession where you are doing something useful for society (E)
4. Because I want to obtain a recognised qualification (I)
5. Because it is a profession which provides intellectual stimulation (I)
6. There are a variety of job opportunities available (E)
7. It provides career stability (E)
8. There is a well-defined career structure (E)
9. It is a profession that provides the ability to work in different regions and countries (E)
10. I want to gain more authority and recognition for my skills (I)
11. It provides future financial security (E)
12. It provides a good starting salary (E)
13. I have experience of either myself or a loved one being hospitalised (I)
14. I have a member of my family or a friend who is/was a nurse (I)

Appendix 2: Independent Samples Tests

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig	t-score	Degrees of freedom	Sig (2-tailed) P value	Mean difference	Std. error difference	95% Confidence Interval of the Difference	
									Lower	Upper
Useful for society	**Equal variances assumed**	.014	.906	-.044	184	.965	-.006	.128	-.259	.247
	Equal variances not assumed			-.051	24.174	.960	-.006	.112	-.236	.225
Job opportunities	**Equal variances assumed**	.439	.508	-.511	184	.610	-.108	.212	-.526	.310
	Equal variances not assumed			-.434	20.820	.668	-.108	.249	-.626	.410
Career stability	**Equal variances assumed**	1.163	.282	-1.128	184	.261	-.188	.167	-.518	.141
	Equal variances not assumed			-1.033	21.421	.313	-.188	.182	-.567	.190
Career structure	**Equal variances assumed**	3.406	.067	-.413	184	.680	-.067	.163	-.389	.254
	Equal variances not assumed			-.346	20.706	.733	-.067	.195	-.473	.338
Work in regions and countries	**Equal variances assumed**	1.680	.197	-.592	184	.554	-.115	.195	-.500	.269
	Equal variances not assumed			-.512	20.937	.614	-.115	.225	-.584	.353
Financial security	**Equal variances assumed**	5.695	.018	-1.904	184	.058	-.394	.207	-.801	.014
	Equal variances not assumed			-1.502	20.312	.148	-.394	.262	-.940	.152
Good starting salary	**Equal variances assumed**	1.162	.282	-.237	184	.813	-.061	.256	-.565	.444
	Equal variances not assumed			-.201	20.818	.842	-.061	.301	-.686	.565