Title:

IDENTIFYING THE NEEDS OF CRITICAL AND ACUTE CARDIAC CARE NURSES WITHIN THE FIRST TWO YEARS OF PRACTICE IN EGYPT USING A NOMINAL GROUP TECHNIQUE

Authors:

1st Author (Corresponding author*):

Name: Ms. Linda L Gormana*, MScHC, BN (Hons), RN, PGC (Academic Practice), SPQ (Critical Care)

Appointment: Assistant Lecturer, Gouna Technical Nursing Institute

Affiliation Address: aGouna Technical Nursing Institute, El Gouna, Hurghada, Red Sea, Egypt

Telephone: (+2) 01287474161

Fax Number: (+2) 065 358 0055

E-mail: linda.gorman@elgounanursing.com

2nd Author:

Name: Dr Joan R S McDowellb, PhD, MN, PHCert FE/HE

Appointment: Senior Lecturer, Nursing and Health Care, University of Glasgow

Affiliation Address: College of Medical, Veterinary & Life Sciences, School of Medicine, Nursing and Health Care, University of Glasgow, 57–61 Oakfield Avenue, Glasgow G12 8LL, UK

Telephone: (+44) 0141 330 6883

Fax Number: (+44) 0141 330 3539

E-mail: Joan.McDowell@glasgow.ac.uk

ABSTRACT

Nursing in Egypt faces many challenges and working conditions in health care settings are generally poor. Little is known about the needs of new nurses transitioning in Egypt. The literature focuses on the first year of practice and only a small body of research has explored the transition needs within acute care speciality settings. This paper reports on the important professional needs of new graduate nurses working in an acute cardiac setting in Egypt during the first two years of practice and differences between their perceived most important needs.

The total population participated and two group interviews were conducted (n=5; n=6) using the nominal group technique. Needs were identified and prioritised using both rankings and ratings to attain consensus. Content analysis was conducted to produce themes and enable cross-group comparison. Rating scores were standardised for comparison within and between groups.

Both groups ranked and rated items as important: 1) education, training and continued professional development; 2) professional standards; 3) supportive clinical practice environment; 4) manageable work patterns, and 5) organisational structure. It is important that health care organisations are responsive to these needs to ensure support strategies reflect the priorities of new nurses transitioning in acute care hospitals within Egypt.

KEYWORDS

Nominal group technique; newly graduate nurses; professional needs; acute cardiac care

1. INTRODUCTION

It could be argued that the challenges confronted by newly graduate nurses (NGNs) are comparable internationally (Phillips et al., 2014). However, there is little published literature related to NGNs working in a health care context of a lower-middle income country (LMIC) such as Egypt. Health care in Egypt, a country classified as a LMIC by the World Bank, has suffered from chronic underinvestment for over 30 years (WHO, 2012). Health care organisations have weak quality assurance systems (WHO, 2009) and are frequently under financed and resourced (Ghanem et al., 2015; IMO, 2012). Insufficient standards of preparation and post-graduated continuing education have resulted in an under skilled and poorly educated nursing workforce (WHO, 2012). Moreover, long working hours coupled with low pay and lack of incentives have contributed to a poor

social image of nursing (WHO, 2012). This poor social image has led to both recruitment and retention problems which in turn has caused a chronic shortage of nurses in Egypt (Ma et al., 2011). These issues have created challenging work environments for nurses (WHO, 2012). The transition of NGNs has been researched in the international literature, however, an Egyptian perspective, and that of those nurses transitioning in acute specialties such as cardiac care has not been undertaken. Such a study is useful in understanding the context of a developing country such as Egypt, where the issues are complex and possibly unique.

2. BACKGROUND

Kramer (1974) was first to describe the term 'reality shock' faced by new nurses entering the profession. Nevertheless, it is well documented that the transition from a student to a qualified nurse continues to be a stressful experience (Gerrish, 2000; Oermann and Garvin, 2002). Much of the published literature related to newly graduated nurses (NGNs) focuses on their first year post graduation, and has concentrated attention on either the perceptions of the transition experience, role or work-related stressors, or support strategies such as preceptorship (Phillips et al., 2014). Less prominence has been given to the actual needs of NGNs in clinical practice, especially after the first year of practice (McKenna, 2008).

NGNs are increasingly being employed directly into acute care environments (Duchscher and Myrick, 2008). Some research has investigated the transition experience of NGNs in

acute care areas (Dyess and Sherman, 2009; Yeh and Yu, 2009), but little has been conducted into the specific needs of NGNs working exclusively in acute specialty areas. Acute clinical areas are deemed to be fast-paced, highly technical environments with high patient acuity which requires a level of clinical expertise (Benner, 1982; Dyess and Sherman, 2009). It has been suggested that NGNs are more at risk of negative transitional experiences when placed in such settings (Cubit and Ryan, 2011; Duchscher, 2008). Poor transition experiences can subsequently have an effect on NGNs' future career decisions in terms of commitment to the organisation and even the profession (Parker et al., 2014).

However, the experiences of NGNs beyond the first graduate year, as well as, those working in acute specialties such as cardiac care, have not been fully investigated and a gap in the literature has also been identified in relation to the published Egyptian literature. Consequently, exploring the needs of NGNs in a specialty setting, such as acute cardiac care, in the first two years of practice within an Egyptian context of health care would contribute to the body of knowledge. The aim of this research study was to identify, prioritise and reach a consensus on the needs of NGNs working in an acute cardiac setting in Egypt within the first two years of graduation. Secondary research questions were;

1. What do NGNs articulate regarding their professional needs?

2. In what way do the needs of NGNs who have graduated less than

one year compare with the needs of NGNs who have graduated

between one to two years?

3. In what way do themes from the literature review verify the findings?

3. RESEARCH DESIGN

A qualitative descriptive exploratory design was employed utilising the nominal group technique (NGT) to illuminate experiences and determine the needs of new nurses during the first two years of practice. A NGT can be described as an information generating tool which produces qualitative findings (Harvey and Holmes, 2012). However, group priorities and areas of consensus can also be identified using a NGT by incorporating mathematical voting techniques such as numerical ranking, re-ranking and rating phases (Delbecq et al., 1975; Harvey and Holmes, 2012; Jones and Hunter, 1995). Rating scores of prioritised items can provide greater insight into areas of agreement or disagreements both *within* and *between* groups compared with ranking alone (Carney et al., 1996; Delbecq et al., 1975; Gallagher et al., 1993; Hares et al., 1992). Cross group comparison of themes produced from qualitative data can also be used to determine levels of consensus between groups (Carney et al., 1996; Hares et al., 1992; McMillan et al., 2014; Perry and Linsley, 2006).

Two nominal group (NG) interviews were conducted in 2015. One group consisting of NGNs who graduated less than one year (NG 1), and another including participants who graduated between one to two years (NG 2). Themes from the literature of NGNs were then compared to the findings to verify the results of the study.

Study approval was gained from the hospital and from the research ethics committee of the authors' university. Informed written consent was obtained from participants prior to commencing the NG sessions.

3.1 Setting and Participants

The study site was a cardiac specialist hospital in Egypt. The hospital is a non-profit private organisation which receives a high volume of referrals from across the country providing acute cardiac care for patients across the lifespan. The target population was limited to three cohorts of NGNs from a non-profit private Technical Institute of Nursing in Egypt who graduated between 2013 and 2015. The institute offers an imported two-and-a-half-year curriculum from the United States of America (USA) in which nurses' graduate with a Technical Diploma which is comparable to an Associate Degree programme from the USA or Diploma level programme from the United Kingdom. The institute has a contractual agreement with the hospital and the majority of its graduates work there for a period of two years' post-graduation.

All graduates from the institute are Egyptian nationals and Arabic is their first language. However, graduates are also fluent in English as their nursing curriculum is conducted fully in English. Nurses with educational backgrounds from national Ministry of Health or Ministry of Higher Education institutes of nursing were excluded due to varying standards of education and English language levels that exists between higher education institutions in Egypt.

The target population was estimated to be fifteen, eight participants had graduated less than one year and seven had graduated between one to two years. Sampling was not required as the total population met the stipulated inclusion criteria. The target population were invited to participate in the study by e-mail through the institute's official alumni e-mail group.

3.2 Data Collection

A detailed NGT protocol was developed based on guidance documented in the seminal work of Van de Ven and Delbecq (1972) and Delbecq et al. (1975) and from the literature (Gallagher et al., 1993; Hares et al., 1992). Other sources were also utilised to complete the protocol (Clark and Friedman, 1982; Tuffrey-Wijne et al., 2007). The NGT process utilised ten distinct steps which incorporated numerical ranking, re-ranking and rating phases (Gallagher et al., 1993; Hares et al., 1992). The protocol had been previously tested in a pilot NG session. Each NGT session was conducted in English, audio-recorded and facilitated by one of the authors. A note-taker was present at both NG sessions to take field notes. The venue was a seminar room in the hospital. All sessions were audio recorded and a short PowerPoint presentation was given at the beginning to facilitate the explanation of the NGT process.

The facilitator opened the meeting with a welcome introduction and clarified the aim of the session (Step 1). Worksheets were distributed to participants, and the nominal question

was presented to the group *"What do you think your needs are working in an acute cardiac hospital?"* Participants were then requested to silently and independently document all of their ideas on their worksheet (Step 2) (Delbecq et al., 1975). Participants were asked to share their ideas with the rest of the group in a 'round robin' fashion which were immediately listed verbatim on a flip chart by the facilitator (Step 3) (Delbecq et al., 1975). The facilitator then invited participants to spend an average of two minutes discussing each item listed to clarify its meaning (Step 4) (Gallagher et al., 1993). Items were not eliminated but any new items generated by this discussion were added with group agreement (Gallagher et al., 1993).

Following the discussion round, individuals were instructed to select their 'top ten' most important items and document them on separate voting cards (Step 5). They were then directed to rank their chosen top ten items from a range of ten to one, ten being the most important, and one the least important (Step 6) (Delbecq et al., 1975).

A 60-minute refreshment break followed to allow the facilitator to tally the votes and identify the top ten priority items as voted for, by the group (Step 7) (Gallagher et al., 1993). Scores for each item from participants were totaled and summed and sorted into descending rank order to produce a list of the group's top ten items (Delbecq et al., 1975). Any item with the same score and frequency received equal ranking (Roeden et al., 2011; Tuffrey-Wijne et al., 2007). The vote tally was done manually by the facilitator and cross checked with the note-taker to ensure accuracy. The top ten items were then displayed on a separate flip chart.

After the break, participants were invited to study the group's top ten priorities and briefly discuss the result (Step 8). Subsequently, group members were given the opportunity to privately re-rank the top ten items in a re-ranking and rating form if desired (Step 9) (Gallagher et al., 1993; Hares et al., 1992). If any items received joint rankings, participants were instructed to re-rank joint items collectively.

The process of rating scores, indicating the relative importance of the item in relation to the top priority item, was explained (Gallagher et al., 1993; Hares et al., 1992). Participants were asked to assign a score of 100 to their most important item and a score of anywhere between 99 and zero for remaining items, as long as the score reflected their final rank order preference (Gallagher et al., 1993; Hares, et al., 1992). Again, participants were requested to rate joint rankings collectively. Each session concluded with summarising the findings and thanking the participants (Step 10).

3.3 Data Analysis

There is limited reference to data analysis of NGT studies in the literature and varied approaches to data interpretation have been utilised (McMillan et al., 2014). For the purposes of this study, data analysis included mathematical analysis of the ranking, re-ranking and rating scoring and qualitative analysis of the complete list of items generated by both NGs and the discussion transcripts.

Mathematical analysis of raw data was based on methods described by earlier work cited in the literature (Clark and Friedman, 1982; Gallagher et al., 1993; Hares et al., 1992).

Raw data from each NG session was collated separately in Microsoft Excel. Raw data included the complete list of items generated in Step 3, first round ranking and voting results from Step 5 and 6, and the second round scores from the re-ranking and rating process in Step 9. The results from the first ranking process was initially analysed manually in Step 7 during each NG session. Thereafter the results were entered into Microsoft Excel to allow for analysis of the second round rating scores. The rating scores were standardised into 'weightings' at an individual and group level to identify areas of consensus both within and between groups (Gallagher et al., 1993; Hares et al., 1992). This also produced a revised priority rank order of the top ten items. Calculations for the mathematical analysis were quality checked by the note-taker.

Qualitative analysis allowed for all items generated in the two NG sessions to be collectively categorised into themes (Aspinal et al., 2006; Hares et al., 1992; Perry and Linsley, 2006). Content analysis was used as a framework (Aspinal et al., 2006; Creswell, 2012; Gallagher et al., 1993; Hares et al., 1992). The discussion sections from the NG sessions (Step 4 and 8) were transcribed verbatim (Gallagher, et al., 1993). The lead researcher immersed herself in the transcripts by re-reading the scripts multiple times, writing memos in the margins (Aspinal et al., 2006; Creswell, 2012). Text segments were identified in the discussion statements of each item and assigned a code (Creswell, 2012). Thereafter, all codes were listed and similar codes amalgamated and redundant codes removed (Creswell, 2012). The transcripts were then reviewed for any new emerging codes and some codes were redefined. By the end of this process each item was assigned a code. Codes were then further reduced to produce themes (Creswell, 2012).

The note-taker reviewed the coding framework and classification of themes. To facilitate cross comparison of themes between the two NG groups, the number of items prioritised by individual groups for each theme was totalled and compared (Hares et al., 1992). The final themes were then compared to the conclusions of the literature review to verify findings.

4. FINDINGS

A total of 11, out of 15 (73%), of the total population of NGNs were recruited and participated in the sessions (NG 1 participants (n=5), graduates of one year or less, and NG 2 participants, graduates between one-to-two years (n=6)).

The majority of participants (n=8, 72%) were based in adult or paediatric critical care areas, with the others (n=3, 28%) working in acute cardiac ward areas. Monthly working hours averaged 258 (minimum: 228 (full time contracted hours per month), maximum: 276). Most participants (n=9, 81%) had staff nurse positions, apart from two from NG 2 who had recently received acting charge nurse positions.

4.1 NGT Items Generated

The NGT generated a wide range of items. A total of 139 items were identified: NG 1 69 items; NG 2 70 items. A large number of joint rankings were produced in both NG 1 and 2 which may be explained by the high number of items generated by each group.

4.2 Themes

The analysis of the 139 items revealed five themes: 1) education, training and continued professional development; 2) professional standards; 3) supportive clinical practice environment; 4) manageable work patterns, and 5) organisational structure (Table 1). Both NG 1 and 2 prioritised items from all five themes confirming a degree of consensus on the priority needs from both groups (Table 2). A critical comparison of the themes in accordance with the existing literature is presented in the discussion section.

4.3 Differences between Groups

Tables 3 and 4 display the differences between each group showing the final rank orders and the standardised group weightings which highlights the relative importance of the higher ranked items. Although there was consensus on themes, there were differences on how the groups prioritised these themes. NG 2 had stronger and more coherent opinions of what they felt was important in comparison to NG 1. The theme '*supportive clinical practice environment*' was also given higher priority by NG 2 in the final rankings in comparison to their junior colleagues.

4.4 Differences within Groups

There were some notable differences within groups especially for the first round ranking and second round re-ranking and rating scoring within NG 1. These discrepancies in

scoring within NG 1 reflect poor levels of agreement on what items were thought to be important within this group (Figure 1). Within NG 2, there was relative consistency between the first and second round ranking, reflecting a reasonably good level of consensus on priority needs (Figure 2).

5. DISCUSSION

The study was successful in highlighting the dynamic needs of NGNs working in an acute cardiac setting in Egypt within the first two years of graduation. The five themes were prioritised by both groups (Table 2) and most of the needs categorised within the themes were supported within the existing literature apart from the theme '*organisational structure*' which is not given priority within other studies relating to NGNs.

The theme '*education, training and continued professional development*' generated the most items, which arguably was foreseeable for NGNs working in an speciality such as acute cardiac care, where there is a high patient acuity and a growing use of complex health care technology. Moreover, nurses in Egypt lack access to quality training and continued education opportunities (WHO, 2012) and most hospitals do not have well-defined staff development strategies or offer structured support programmes such as preceptorship for NGNs. Nevertheless, it is known that NGNs have extensive needs in relation to their professional development, especially within the first graduate year (Cubit and Ryan, 2011; Kumaran and Carney, 2014; Newton and McKenna, 2007; Pennbrant et

al., 2013; Rush et al., 2013). NGNs have similarly asserted that they require educational support to develop both practical and management skills, as well as knowledge and confidence in the first few months of practice (Duchscher and Myrick, 2008; Higgins et al., 2010; Ortiz, 2016; Rush et al., 2013; Whitehead et al., 2013).

Both groups articulated the need to deliver evidence based, patient centred care which was of a professional standard. These needs can in part be rationalised by the lack of vigorous regulatory quality assurance systems for both health care professionals and organisations in Egypt, as well as, the lack of awareness of patient right's (Fullerton and Sukkary-Stolba, 1995; Ghanem et al., 2015; WHO, 2009; 2012). However, international studies have shown that NGNs are often confronted with a large theory-practice gap, between the ideals learned as a student in comparison to the actualities of everyday clinical practice (Duchscher, 2001; 2008; Feng and Tsai, 2012; Kramer, 1974; Maben et al., 2006). Participants in NG 1 prioritised this theme slightly higher (Table 2), which may imply that these feelings of dissonance are more pronounced in the first year of practice, a finding endorsed in the fore mentioned literature.

The theme '*supportive clinical practice environment'* can be found in a variety of studies highlighting the importance of supportive work environments when transitioning into practice (Johnstone et al., 2008; Kramer et al., 2013; Laschinger and Grau, 2012; Maben et al., 2006; Pennbrant et al., 2013). The need to feel valued and have support from both peers and senior nurses, as well as, collaborative relationships with physicians has been found to be important (Dyess and Sherman, 2009; Malouf and West, 2011; McKenna et

al., 2003; Phillips et al., 2014; Rush et al., 2013), all of which were revealed by NGNs within this study. Moreover, the need for appropriate supervision and guidance coupled with ongoing constructive feedback was voiced by participants. This has also been reflected in earlier studies (Parker et al., 2014; Phillips et al., 2014; 2015; Rush et al., 2013). It is not surprising therefore, that needs in this category were important to participants, especially within an Egyptian context were traditional hierarchical relationships between doctors and nurses remain prominent (Fullerton and Sukkary-Stolba, 1995). However, in comparison between NG 1 and NG 2 it is of note that the older group of graduates (NG 2) placed much greater importance on needs categorised under this theme in comparison to their junior colleagues (Table 2). It has been previously reported that levels of burnout significantly increased among NGNs in their second year of practice due to the influence of unsupportive practice environments (Rudman and Petter-Gustavsson, 2011). This may explain this finding in NG 2 and suggests that NGNs require continued support into their second year of practice. This is in contrast to the international literature which advocates formal support for the first nine months of practice only (Rush et al., 2013) and that nurses are fully socialised into their clinical environment at 18 months' post-graduation (McKenna, 2008).

NGNs in this study worked excessively long hours. This is common in Egyptian hospitals due to chronic staff shortages (WHO, 2012). However, the need for manageable work patterns for NGNs has also been echoed within the international literature (Casey et al., 2004; Duchscher, 2008; 2009; Fox et al., 2005; Kumaran and Carney, 2014; Maben et al., 2006; Oermann and Gravin, 2002; Parker et al., 2014; Phillips et al., 2014; Tastan et al.,

2013). As in this study, Duchscher (2008) affirmed that NGNs in acute care settings have difficulty adapting to shift patterns and suffer from a perceived work-life imbalance. Moreover, NGNs in other studies have similarly voiced frustrations at staff deficits, inappropriate nurse-patient ratios and patient allocations (Casey et al., 2004; Maben et al., 2006). NG 1 prioritised this theme higher than their senior colleagues (Table 3), which could indicate they find this adjustment to work patterns more stressful in their first year of practice as mirrored in previous studies.

The theme of '*organisational structure'* has not emerged as powerfully in other published research relating to NGNs. This may be due to the Egyptian context of health care, although there is no research to confirm this. Fox et al. (2005) asserted the need for NGNs to 'know the system' and understand how the organisation worked. Nevertheless, inadequate legislature and lack of robust organisational policies and procedures, coupled with the poor social standing of the profession in Egypt have left nurses with minimal access to work entitlements or empowerment structures, as well as, a lack of nursing leaders both at local and national level to advocate for the profession (El-Salam et al., 2008; Fullerton and Sukkary-Stolba, 1995; Ghanem et al., 2015: WHO, 2012). This theme arose mainly from the senior graduates (NG 2) and was prioritised higher within this group (Table 4), which might propose that these needs become greater as they are exposed to more management and leadership roles.

Overall, graduates of one to two years' experience in NG 2 voted with reasonable agreement in relation to their priority needs (Figure 1), however, the newest graduates

had much less consensus (Figure 2). This may be because NGNs' needs are more dynamic in the first twelve months of practice and they are not yet able to confidently determine their priority needs. Little work has been conducted exploring NGNs in the second year of practice and therefore these findings cannot be wholly verified. However, the good level of agreement found in NG 2 suggests that these needs are significant to NGNs' ongoing development at this stage of practice in Egypt. Therefore, there is a need to undertake research into the needs of second year NGNs who are becoming more experienced and assuming greater responsibilities in care and the organisational culture.

6. LIMITATIONS OF THE STUDY

There are some limitations with this study. This paper reports needs of NGNs from one hospital in Egypt and may not necessarily be transferable to a broader population. Nonetheless, the similarity of the findings from this study and the international literature, as well as the fact that the five themes were prioritised by both groups (Table 2), implies that the needs identified are important to NGNs.

One of the authors was also a previous Nurse Educator for these participants that may have influenced their willingness to speak unreservedly. Moreover, English was a second language for participants, which could also have inhibited discussion. Nevertheless, the open discussions and the large number of items generated showed these issues did not appear to be a hindrance. While the total population was approached and recruited, a larger sample would strengthen the trustworthiness of this research.

7. CONCLUSION AND IMPLICATIONS FOR PRACTICE

This study identified the needs of NGNs working in an acute cardiac setting within the first two years of practice from an Egyptian perspective. The findings are supported within the international literature with the exception of the theme of 'organisational structure' which has not been explicitly highlighted in relation to NGNs. Nonetheless, this could be explained by the context of health care in a LMIC country such as Egypt. Further research is required to confirm the findings. There is a need to undertake research into the needs of second year NGNs who are becoming more experienced and assuming greater responsibilities in care and the organisational culture.

Despite the small total population which limits the transferability and the assumptions that can be made, there are some implications for practice. The themes which emerged from the needs expressed by participants are critically important for professional socialisation and continued development of competence after graduation. Therefore, it is imperative that health care organisations in Egypt are responsive to these needs to ensure support strategies offered reflect the priorities of NGNs transitioning in acute care hospitals to help them develop their role. Moreover, these support strategies should extend into the second year of practice after graduation.

Conflict of Interest Statement: None

Funding:

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

REFERENCES

Aspinal, F., Hughes, R., Dunckley, M., Addington-Hall, J., 2006. What is Important to Measure in the Last Months & Weeks of Life? A Modified Nominal Group Study. International Journal of Nursing Studies 43, 393 – 403.

Benner, P., 1982. From Novice to Expert. The American Journal of Nursing 82 (3), 402 – 407.

Carney, O., McIntosh, J., Worth, A., 1996. The use of the Nominal Group Technique in Research with Community Nurses. Journal of Advanced Nursing 23, 1024 – 1029.

Casey, K., Fink. R., Krugman, M., Propst, J., 2004. The Graduate Nurse Experience. Journal of Advanced Nursing 34 (6), 303 – 311.

Clark, A., Friedman, M., 1982. The Relative Importance of Treatment Outcomes: A Delphi Group Weighting in Mental Health. Evaluation Review 6, 79 – 93.

Creswell, J., 2012. Educational Research: Planning, Conducting and Evaluating Qualitative and Qualitative Research, forth ed. Boston, Pearson.

Cubit, K., Ryan, B., 2011. Tailoring a Graduate Nurse Program to Meet the Needs of our Next Generation Nurses. Nurse Education Today 31, 65 – 71.

Delbecq, A.L., Van de Ven, A.H., Gustafson, D.H., 1975. Group Techniques for Programme Planning: A guide to Nominal Group and Delphi Processes. Glenview, IL, Scott Foresman and Company.

Duchscher, J., 2001. Out in the Real World: Newly Graduated Nurses in Acute-care Speak Out. JONA 31 (9), 426 – 439.

Duchscher, J., 2008. A Process of Becoming: The Stages of New Nursing Graduate Professional Role Transition. The Journal of Continuing in Nursing 39 (10), 441 – 450.

Duchscher, J., Myrick, F., 2008. The Prevailing Winds of Oppression: Understanding the New Graduate Experience in Acute Care. Nursing Forum 43 (4), 191 – 206.

Duchscher, J., 2009. Transition Shock: The Initial Stage of Role Adaptation for Newly Graduated Registered Nurses. Journal of Advanced Nursing 65 (5), 1103 – 111.

Dyess, S., Sherman, R., 2009. The First Year of Practice: New Graduate Nurses' Transition and Learning Needs. The Journal of Continuing Education in Nursing 40 (9), 403 – 410.

El-Salam, G., Ibrahim, M., Mohsen, M., Hassanein, S., 2008. Relationship between Organizational Climate and Empowerment of Nurses in Menoufiya Hospitals, Egypt. Eastern Mediterranean Health Journal 14 (5), 1173 – 1184.

Feng, R., Tsai, Y., 2012. Socialisation of New Graduate Nurses to Practising Nurses. Journal of Clinical Nursing 21 (13/14), 2064 – 2071.

Fox, R., Henderson, A., Malko-Nyhan, K., 2005. 'They Survived Despite the Organisational Culture, not because of it': A Longitudinal Study of New Staff Perceptions of What constitutes Support during the Transition to an Acute Tertiary Facility. International Journal of Nursing Practice 11, 193 – 199.

Fullerton, J., Sukkary-Stolba, S., 1995. Advancing the Status of Nursing in Egypt: The Project to Promote the Development of the High Institutes of Nursing. International Journal of Nursing Studies 32 (5), 518 – 524.

Gallagher, M., Hares, T., Spencer, J., Bradshaw, C., Webb, I., 1993. The Nominal Group Technique: A Research Tool for General Practice? Family Practice 10 (1), 76 – 81.

Gerrish, K., 2000. Still Fumbling Along? A Comparative Study of the Newly Qualified Nurse's Perception of the Transition from Student to Qualified Nurse. Journal of Advanced Nursing 32 (2), 473 – 480.

Ghanem, M., Megahed, H., Abd El-Fattah Mohamed Aly, N., 2015. Practice of patient's Rights Among Physicians and Nurses in Two Egyptian Hospitals from Patients' Perspective. Journal of Natural Sciences Research 5 (16), 159 - 169.

Hares, T., Spencer, J., Gallagher, M., Bradshaw, C., Webb, I., 1992. Diabetes care: Who are the Experts? Quality in Health Care 1, 219 – 224.

Harvey, N., Holmes, C., 2012. Nominal Group Technique: An Effective Method for Obtaining Group Consensus. International Journal of Nursing Practice 18, 188 – 194.

Higgins, G., Spencer, R., Kane, R., 2010. A Systematic Review of the Experiences and Perceptions of the Newly Qualified Nurse in the United Kingdom. Nurse Education Today 30, 499 – 508.

International Organisation for Migration (IMO), 2012. Egypt Mobility of Health Professionals. [Pdf] Belgium: IMO. Accessed at: http://philipus.de/mohprof.eu/LIVE/DATA/National_reports/national_report_Egypt.pdf [Accessed 15 September 2015].

Johnstone, M., Kanitsaki, O., Currie, T., 2008. The Nature and Implications of Support in Graduate Nurse Transition Programs: An Australian Study. Journal of Professional Nursing 24 (1), 46 – 53.

Jones, J., Hunter, D., 1995. Consensus Methods for Medical and Health Services Research. BMJ, 311, 376 – 380.

Kramer, M., 1974. Reality Shock: Why Nurses Leave Nursing. St Louis, C.V. Mosby Company.

Kramer, M., Maguire, P., Halfer, D., Brewer, B., Schmalenberg, C., 2013. Impact of Residency Programs on Professional Socialization of Newly Licensed Registered Nurses. Western Journal of Nursing Research 35 (4), 459 – 496.

Kumaran, S., Carney, M., 2014. Role Transition from Student Nurse to Staff Nurse: Facilitating the Transition Period. Nurse Education Today 14, 605 – 611.

Laschinger, H., Grau, A., 2012. The Influence of Personal Dispositional Factors and Organizational Resources on Workplace Violence, Burnout, and Health Outcomes in New Graduate Nurses: A Cross-sectional Study. International Journal of Nursing Studies 49, 282 – 291.

Ma, C., Fouly, H., Li, J., D'Antonio, P., 2011. The Education of Nurses in China and Egypt. Nursing Outlook 60 (3), 127 - 133.

Maben, J., Latter, S., Macleod Clark, J., 2006. The Theory-practice Gap: Impact of Professional-bureaucratic Work Conflict on Newly-qualified Nurses. Journal of Advanced Nursing 55 (4), 465 – 477.

Malouf, N., West, S., 2011. Fitting in: A Pervasive New Graduate Nurse Need. Nurse Education Today 31, 488 – 493.

McKenna, L., 2008. After the Graduate Year: A Phenomenological Exploration of How New Nurses Develop their Knowledge and Skill over the First 18 Months Following Graduation. Australian Journal of Advanced Nursing 25 (4) 9 – 15.

McKenna, B., Smith, N., Poole, S., Coverdale, J., 2003. Horizontal Violence: Experiences of Registered Nurses in their First Year of Practice. Journal of Advanced Nursing 42 (1), 90 – 96.

McMillan, S., Kelly, F., Sav, A., Kendall, E., King, M., Whitty, J., Wheeler, A., 2014. Using the Nominal Group Technique: How to Analyse Across Multiple Groups. Health Service Outcomes Research Method 14, 92 – 108.

Newton, J., McKenna, L., 2007. The Transitional Journey through the Graduate Year: A Focus Group Study. International Journal of Nursing Studies 44, 1231 – 1237.

Oermann, M., Garvin, M., 2002. Stresses and Challenges for New Graduates in Hospitals. Nurse Education Today 22 (3), 225 – 230.

Ortiz, J., 2016. New Graduate Nurses' Experiences about Lack of Professional Confidence. Nurse Education in Practice 19, 19 – 24.

Parker, V., Giles, M., Lantry, G., McMillan, M., 2014. New Graduate Nurses' Experiences in their First Year of Practice. Nurse Education Today 34, 150 – 156.

Pennbrant, S., Nilsson, M., Ohlen, J., Rudman, A., 2013. Mastering the Professional Role as a Newly Graduated Registered Nurse. Nurse Education Today 33, 739 – 745.

Perry, J., Linsley, S., 2006. The use of the Nominal Group Technique as an Evaluative Tool in the Teaching & Summative Assessment of the Inter-personal Skills of Student Mental Health Nurses. Nurse Education Today 26, 346 – 353.

Phillips, C., Kenny, A., Esterman, A., Smith, C., 2014. A Secondary Data Analysis Examining the Needs of Graduate Nurses in their Transition to a New Role. Nurse Education in Practice 14, 106 – 111.

Phillips, C., Esterman, A., Kenny, A., 2015. The Theory of Organisational Socialisation and its Potential for Improving Transition Experiences for New Graduate Nurses. Nurse Education Today 35, 118 – 124.

Roeden, J., Maaskant, M., Curfs, L., 2011. The Views of Clients with Mild Intellectual Disabilities Regarding their Working Relationships with Caregivers. Journal of Applied Research in Intellectual Disabilities 24, 398 – 406.

Rudman, A., Petter-Gustavsson, J., 2011. Early-career Burnout among New Graduate Nurses: A Prospective Observational Study of Intra-individual Change Trajectories. International Journal of Nursing Studies 48, 292 – 306.

Rush, K., Adamack, M., Gordon, J., Lilly, M., Janke, R., 2013. Best Practices of Formal New Graduate Nurse Transition Programs: An Integrative Review. International Journal of Nursing Studies 50, 345 – 356.

Tastan, S., Unver, V., Hatipoglu, S., 2013. An Analysis of the Factors Affecting the Transition Period to Professional Roles for Newly Graduated Nurses in Turkey. International Nursing Review 60, 405 – 412.

Tuffrey-Wijne, I., Bernal, J., Butler, G., Hollins, S., Curfs, L., 2007. Using Nominal Group Technique to investigate the views of People with Intellectual Disabilities on End-of-life Care Provision. Journal of Advanced Nursing 58 (1), 80 – 89.

Van de Ven, A.L., Delbecq, A.H., 1972. The Nominal Group as a Research Instrument for Exploratory Health Studies. American Journal of Public Health 62, 337 – 342.

Whitehead, B., Owen, P., Holmes, D., Beddingham, E., Simmons, M., Henshaw, L., Barton, M., Walker, C., 2013. Supporting Newly Qualified Nurses in the UK: A Systematic Review. Nurse Education Today 33, 370 – 377.

World Health Organisation, 2009. Egypt Country Cooperation Strategy at a Glance. [online] Country Office for Egypt, WHO. Available at: <http://www.who.int/countryfocus/cooperation_strategy/ccsbrief_egy_09_en.pdf?ua=1> [Accessed 14 March 2015].

World Health Organisation, 2012. Egypt Nursing Profile. [online] Country Office for Egypt, WHO. Available at: <http://www.emro.who.int/images/stories/cah/fact_sheet/Nursing_Profile.pdf> [Accessed 27 September 2014].

Yeh, M., Yu, S., 2009. Job Stress and Intention to Quit in Newly-Graduated Nurses during the First Three Months of Work in Taiwan. Journal of Clinical Nursing 18, 3450 – 3460.

Table 1: Themes

Theme	Total Number of Items Generated	Theme Description	Supportive Quotes
Education, Training and Continued Professional Development	33	Focuses on the need for life-long learning in terms of academic training and specialist education from a higher education institute, as well as, access to in-house education and conferences. Also, the need for professional skill development, including the development of non-technical skills was also stressed.	Item: 'Learn new skills': NG 2, Participant 4: *It's important to be updated and follow the latest research… we need to have weekly lectures so that we can discuss together….*
Professional Standards	30	Includes issues related to standards of professional practice, including the need for incorporating ethical and moral values into patient care, as well as, the need for professional behaviour, conduct and communication. Moreover, NGN's highlighted the need to practice effectively in line with the best available practice and preserve patient safety.	Item: 'Ethical treatment for my right and patient's right': NG 1, Participant 4: *There is a lot of nurses that come to the hospital and they don't know anything about ethics or the patient's rights….a lot of patients are illiterate so you have to explain all of the*

			procedures for the patients…..
Supportive Clinical Practice Environment	27	Refers to the need for support, both professional and pastoral, and also timely, constructive and transparent feedback, supervision and evaluation. Furthermore, supportive collegial and multi-professional relationships and feeling valued were also deemed important, along with the need for structured orientation and rotation programmes for NGNs.	Item: 'Regular feedback and evaluation for improvement': NG 1, Participant 3: *I need the charge nurse or the supervisor in the unit to evaluate me. I need him to give me positive feedback first, then the negative points……not to blame me or give me the evaluation in front of the rest of the staff or in front of the patients……I need privacy for my evaluation….*
Manageable Work Patterns	26	Focuses on the need for manageable workloads and fair patient allocations within the NGN's scope of practice. Includes issues related to the need for adequate staffing levels and the need for a better work life balance.	Item: 'Newly Graduate': NG 1, Participant 2: *They have a shortage of nurses so they overload the newly graduated to deal with critical cases and maybe this will effect patients…….they forget this is the first experience for us to work here……we don't have experience of working in another place before…...*
Organisational Structure	23	Covers issues related to the need for organisational leadership and structured organisational policies, procedures and systems which are transparent and equitable, especially in relation to risk management and human resources. Staff benefits were also seen as important.	Item: 'Justice atmosphere': NG 1, Participant 5: *Nurses should be equal in promotion, in education, and in assignment delegation. The one who is managing or the administration should deal with all the nursing staff in the same way….*

Table 2: Cross Group Comparison of Themes

Theme	No of Items prioritised by NG 1	No of Items prioritised by NG 2
Education, Training and Continued Professional Development	5	5
Professional Standards	3	2
Supportive Clinical Practice Environment	2	8
Manageable Work Patterns	4	2
Organisational Structure	2	3
Total	**16**	**20**

Table 3: NG 1 Re-ranking and Group Weighting of Top Ten Items

Re-Ranking	Theme	Item Description	Standardised Group Weighting
10	Supportive Clinical Practice Environment	Regular feedback and evaluation for improvement	0.128
9	Manageable Work Patterns	Avoid overloading and respect of time	0.121
8	Education, Training and Continued Professional Development	Continuous education for higher degree	0.120
8	Manageable Work Patterns	Newly graduate	0.120
8	Professional Standards	Ethical treatment for my right and patient's right	0.120
7	Organisational Structure	Justice atmosphere	0.113
6	Education, Training and Continued Professional Development	Workshops related to cardiac procedures	0.102
5	Education, Training and Continued Professional Development	Think critically	0.096
5	Organisational Structure	Leadership	0.096
4	Education, Training and Continued	Leadership and teamwork	0.086

	Professional Development		
4	Professional Standards	Follow the hierarchy system	0.086
4	Professional Standards	Follow the guidelines	0.086
3	Education, Training and Continued Professional Development	Attending international nursing conferences	0.081
2	Manageable Work Patterns	Entertainment	0.079
2	Manageable Work Patterns	How to say no	0.079
1	Supportive Clinical Practice Environment	Self-evaluation	0.074

**Ranking 10 = Most Important; Ranking 1 = Least Important.*

NG 1 prioritised the item ‘‘Regular feedback and evaluation for improvement’ (0.128) as most important which was viewed to be approximately 1.7 times more important than lowest ranked item, ‘self-evaluation’ (0.074).

Table 4: NG 2 Re-ranking and Group Weighting of Top Ten Items

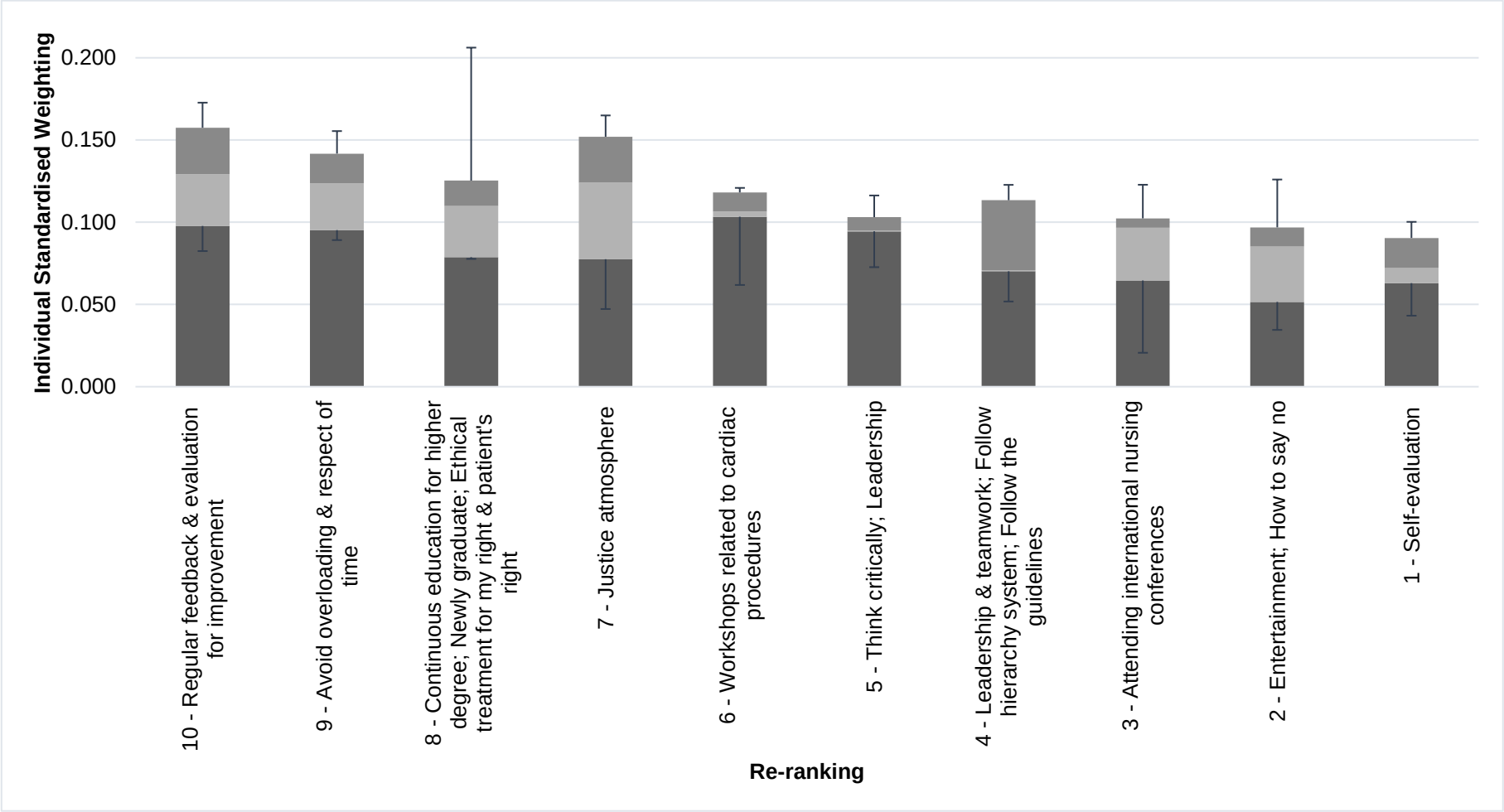
Re-Ranking	Theme	Item Description	Standardised Group Weighting
10	Organisational Structure	Need to feel secure	0.140
9	Organisational Structure	Need system	0.135
8	Supportive Clinical Practice Environment	Respect	0.126
7	Supportive Clinical Practice Environment	Motivation and rewards	0.099
6	Supportive Clinical Practice Environment	Treat us equally	0.096
6	Supportive Clinical Practice Environment	Team work	0.096
6	Manageable Work Patterns	No calls on off days	0.096
5	Supportive Clinical Practice Environment	Appreciation	0.095
5	Education, Training and Continued Professional Development	Courses	0.095
4	Supportive Clinical Practice Environment	Role model	0.092
4	Professional Standards	Good ways to solve mistakes	0.092

3	Education, Training and Continued Professional Development	Education and exams	0.089
3	Supportive Clinical Practice Environment	Someone to listen for us	0.089
3	Organisational Structure	Increase the salary	0.089
3	Education, Training and Continued Professional Development	Complete education	0.089
2	Education, Training and Continued Professional Development	Learn new skills	0.072
1	Manageable Work Patterns	Eight hour shifts	0.057
1	Supportive Clinical Practice Environment	Follow up my practice - if it is right or wrong	0.057
1	Education, Training and Continued Professional Development	Free readings	0.057
1	Professional Standards	Professionalism	0.057

**Ranking 10 = Most Important; Ranking 1 = Least Important.*

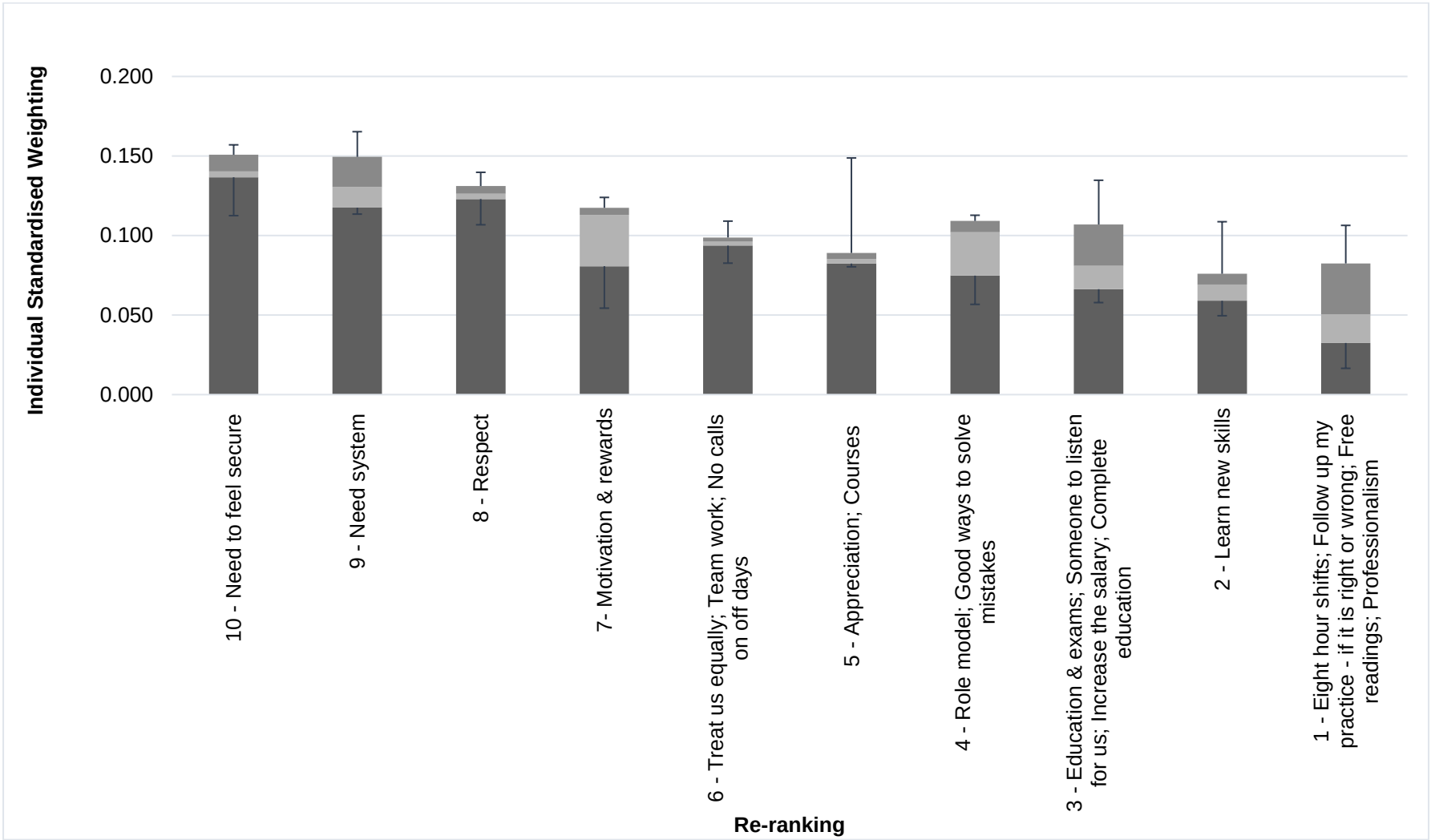
The NG 2 group weighting scores revealed the most important item, 'need to feel secure' (0.140), was seen as approximately 2.5 times more important than the lowest ranked item, 'professionalism' (0.057).

Figure 1: Differences within NG 1



Legend for Figure 1: The differences within NG 1. In NG 1 there were large variations between the two rounds of voting for all items apart from those ranked number 9 and 10, and the two items jointly ranked at number 5. Item number 4 had the largest movement, moving to a ranking of 8 in the second round voting. These discrepancies in scoring within NG 1 reflect poor levels of agreement on what items were thought to be important within this group. Items where there was disagreement are represented by large sized box plots, best shown in item number 7.

Figure 2: Differences within NG 2



Legend for Figure 2: The differences within NG 2. Within NG 2, there was relative consistency between the first and second round voting. Only items originally ranked as 4, 5 and 6 in the first round vote shifted in the re-ranking and rating phase and by smaller proportions. Therefore, a reasonably good level of consensus on priority needs was found within this group, illustrated by a higher frequency of smaller sized box plots, indicating a tight grouping of scores, best illustrated in items ranked at number 6.