

ORIGINAL RESEARCH

A glimpse into nursing discursive behaviour in interprofessional online learning

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Abstract

Background: The importance of interprofessional learning to provide quality patient care has resulted in the increasing use of asynchronous computer mediated conferencing in healthcare programmes within universities. The asynchronicity based on typed-written discussions in a virtual learning environment which provided flexibility in learning was used to increase opportunities for nurses and other allied healthcare professionals to participate in interprofessional learning in higher education. However, successful online learning relies on discursive practices in the virtual learning environment, embedded within discursive exchanges in practice are power relations in nursing language use; which had a negative impact on interprofessional learning and working relationships amongst nurses, between nurses and other allied healthcare professionals. This paper presents an analysis of the discursive practices of registered nurses in interprofessional learning based on asynchronous computer mediated conferencing. It aimed to ascertain if power relations were implicit in nursing language.

Methods: Fairclough's critical discourse analysis was used to analyse eight hundred and ninety typewritten online messages created in a 100% text-based online learning module at Master's level in a University in North England between September 2004 and September 2009. Although the messages were created by 9 registered nurses and 4 other allied healthcare professionals undertaking interprofessional learning to learn about the issues surrounding e-learning in healthcare settings, this paper is part of a larger study focused on the messages by the nurses.

Results: Nurses' messages tended to appear as the first few responses in the discussion threads and their language was formal and objectifying. The genres resembled those found either in written assignment within higher education or in nursing documentation within practice. The virtual learning environment was an alternative social space for clinical practice where dominance of nurses was created, maintained and reinforced.

Conclusions: Existing literature highlighted the incidents of problematic issues of interprofessional learning. In contrast, this paper explains the way nurses, through discursive practices, construct themselves in relation to their nursing and allied healthcare colleagues. Nurses need to be aware of the power-relations embedded in their language use and future research could usefully focus on the discursive aspect of interprofessional learning.

Key words

Asynchronous computer mediated conferencing, Critical discourse analysis, Interprofessional online learning, Power-relations, Virtual learning environment

1 Introduction

Interprofessional learning which involves healthcare professionals from various disciplines, learning with, from and about each other, is important for achieving quality patient care^[1,2]. As a result of social or work commitments, nurses might be deprived of interprofessional learning in formal settings within universities. To widen interprofessional learning participation, many higher education institutions have taken advantage of the flexibility of asynchronous text-based computer mediated conferencing (ACMC). By using ACMC as a pedagogic tool in post registration nursing programmes^[3,4], asynchronous learning through type-written communication via a virtual learning environment was made possible for nurses, hence, increasing their engagement in the advancement of web-based learning within higher education (HE). Nurses were then able to share more equal opportunities to achieve higher learning^[5].

However, while learning relies on the discursive practices of the participants, the absence of face-to-face interactions in a text-based virtual learning environment could lead to problematic discursive practices of the participants through the interprofessional online provision. This was especially if power relations are embedded in nurses' language as demonstrated in research work on the use of nurses' language by Hamilton & Manias^[6] and Liu et al^[7]. Based on this understanding of the characteristics of nurses' language, the aim of the study was to move beyond the functional aspects of online communication to reveal its political effects and gain a critical understanding of nurses' language that maintains and reinforces the power-relations established in healthcare practices. Hence, the ideas of Fairclough about discourse analysis of written texts were used in deconstructing nurses' discursive practices^[8] to gain an appreciation of the political forces at play during on-line learning within a university context.

2 Background

The consensus in healthcare is that there is insufficient evidence of interprofessional learning in health professional post registration education^[10-14]. The phenomenon of the lack of interprofessional learning was affirmed by Zwarenstein and Reeves^[15] through their investigation into evidence-based practice processes. Additionally, many studies about mature students in health and social care programmes had drawn a unanimous conclusion which indicated negative interprofessional learning experiences^[16-19].

Many researchers recognised effective communication, good interpersonal skills and respect for others' professional perspectives as important factors to successful interprofessional learning^[20-23]. However, less emphasis was given to concepts of power and power relations, yet, power (including oppressive forms) implicit in the social relations were manifestly found in nurses' discourses, in the form of linguistic bullying behaviours in practice^[25, 26]. These verbal bullying behaviours were hierarchical being displayed mainly by those in higher professional positions^[24-28]. Notably, bullying behaviours occurred amongst nurses and also between nurses and other professionals allied to health, thus affecting interprofessional working relationships^[25, 27-29].

Other than the verbal bullying, an implicit expression of power exertion by nurses was through nursing documentation in care planning. Given the fact that the standardised language in nursing documentation was borrowed from the medical profession, it had the potential to constitute nursing as a profession of higher status than other non-medical professions^[31]. In socio-political terms, using standardised medical language in nursing documentation serves to raise the overall view of the professionalisation of nursing^[31-34]. In this regard, embedded in nurses' language are power relations^[6, 7].

Whether power relations were similarly embedded in registered nurses' discursive practices during their interprofessional learning with other allied health professionals within an academic environment based on asynchronous text-based computer mediated conferencing was not known. The aim of the study was therefore to uncover nursing discursive practices, through their typed-written text to ascertain if power relations were implicit in nursing language and to

determine its effects on interprofessional online learning. In essence, it was to illuminate any power relations at play in asynchronous discussions and it was important to do so within an authentic interprofessional learning situation.

3 Subjects and methods

3.1 Study design

The study used the ‘three-dimensional’ (3-D) analytical framework known as critical discourse analysis (CDA). This framework was based on Fairclough’s^[35] view of discourse as social practice where language is in relation to power and ideology. Fairclough’s^[35] CDA using text as language use, was based on various different and overlapping versions of theories, including Halliday’s^[36] functional linguistics theory and Bakhtin’s^[37] theory of genre and intertextuality. Fairclough therefore views language as dialectically interrelated to social events and social practice, which are in turn, dialectically interrelated with each other. However, he also considers these elements as inherently ideological in social order and social context, the latter being beyond text production, interpretation and consumption. Drawing from Bakhtin’s theory of intertextuality, Fairclough^[35] saw people as having the ability to draw upon any socially available resources that constituted texts, and therefore had conventions and order of discourse to deal with pressures from the specificity of particular situations of text production. Using Bakhtin’s theory of intertextuality, he also believes people, as producers and interpreters of text were able to use these socially available resources in innovative ways to generate new configurations and discourses in which texts become part repetition and part creation^[37].

Whilst Fairclough^[35] asserted the ability of individuals for freedom of text production, he concurred with Foucault’s^[39] concept of power as asymmetries between participants in any discursive events and the unequal capacity to control how texts were produced, distributed and consumed. He therefore saw text production and consumption as constrained and controlled in power relations; the social relations of domination within a social system and their functioning within it. Fairclough^[35] explained that power relations had control over the way a particular and relatively stabilised configuration of discourse practice to the extent, that it could give rise to the ‘order of discourse’ to constitute one domain of hegemony. As a result, Fairclough^[35] argued that text could negotiate the socio-cultural contradictions in forms of social struggle and believed that power relations were discursively produced. For this reason, Fairclough’s approach to discourse analysis is critical and is referred to as critical discourse analysis (CDA).

3.2 Sample

The online discussions as data for analysis were targeted at the e-learning site powered by blackboard6 (*Bb*) of a University in North England in 2009. A targeted search for an online text-based module, which comprised a good volume of messages, was conducted. This resulted in a 20-credit post graduate module at Master’s level, undertaken by 9 registered nurses (4 in dual managerial and educational positions; 3 nurse lecturers; 2 health visitors), 2 operating department practitioners (1 in educational position), 1 occupational therapist and 1 health promoter (for teenage sexual health). All participants had at least 5 years of work experience in their respective fields in healthcare. Further details of participants’ profiles can be found in Table 1. The site was established for the module commenced in September 2004. The module was intended for participants to learn about e-learning in healthcare education, topics of which were initiated by an e-moderator (a nurse by background) in the form of discussion threads over a 12-week period.

Online discussions were not graded but a reflective report on students’ online teaching and learning behaviour was submitted by each student, which formed 40% of the summative assessment. A proposal on how students would implement e-learning in their place of work, based on what they have learnt out of discussing the current issues constituted the other 60%. In the discussion forum, other than responding to the original threads by the e-moderator, students had initiated many new threads. This was with minimal help by the e-moderator who only needed to post the first message in every discussion topic area for setting the context of discussion. Such active participation was observed that the site had

remained accessible by students post completion of the module. Due to such impressive students' active participation, the module had also been used as an exemplary of interprofessional online learning in the faculty. The site was finally shut down in September 2009 when *Bb* was replaced by another software tool *e-bridge*.

Table 1. Online Participants

Title	Place/nature of work	Reason for enrolling on the module	IT skills & Knowledge	Experience with ACMC
Student 1 Occupational Therapist	Administration, strategic planning	For continuous professional development (CPD)	Word processing, Emailing	Nil
Student 2 Health Promotion Specialist	Public Health/ Provided sex educating to youths in community	To achieve MSc award	Word processing, Emailing	Fair amount from informal chats
Student 3 Operating Department Practitioner (ODP)	Secondary care/ taught ODP students	For CDP	Word processing, Emailing	Completed a 100% online course at master level using ACMC
Student 4 Lecturer (ODP)	University/taught ODP students	To achieve MSc award	Word processing, Power point presentation (ppt), Emailing	Nil
Student 5 RN/Midwife	Secondary care/ taught & mentored student midwives	To achieve MSc award	Word processing, Emailing	Nil
Student 6 Practice Nurse (Registered Nurse - RN)	Primary care/ taught and mentored healthcare assistants (HCA), junior nurses & student nurses	To achieve MSc award	Word processing, Emailing	Nil
Student 7/8 Health Visitors (RNs)	Primary care/ taught and mentored HCA & student nurses	1 to achieve MSc award 1 for CPD	Word processing, Emailing	Nil
Student 9 Matron (RN)	Secondary care/ Strategic planning at management level mentored student nurses	To achieve MSc award	Word processing, Emailing	Nil
Student 10 Practice Educator (RN)	Secondary care/ taught & mentored student nurses & HCA	To achieve MSc award	Word processing, Emailing	Nil
Student 11 Lecturer (RN)	University taught student & qualified nurses	To achieve MSc award	Word processing, ppt, Emailing	Large amount from informal chats
Student 12/13 Lecturers (RNs)	University taught student & qualified nurses	1 to achieve MSc award 1 for CPD	Word processing, Emailing	Nil

3.2.1 Data collection

The active student online participation had produced a total of 890 online messages. These were downloaded and printed in verbatim as discourse data in 2009. The names of the students were replaced with numbers to protect students' identities.

3.2.2 Ethical considerations

Ethics committee approval was obtained from the university where the online module was conducted. Written consent was obtained from participants to access and analyse their messages. Participants were informed of potential risks of identification through publication of the actual messages. Additionally, participants were informed they could withdraw from the study at any time.

3.2.3 Data analysis

The data were entered into 'NVivo version 8' to facilitate transcript coding and analysis of the interactional patterns. This process was then followed by Fairclough's ^[39] CDA based on the 3-D framework to map three separate forms of analysis:

- i. Textual analysis by which attention was paid to textual organisation. The transitivity of text was also analysed with attention directed to the verbs with objects to determine the social relationship of the participants in the interaction. Both the mood and modality are assessed to determine, if for example, the sentence was a statement, declaration or question.
- ii. Interdiscursive analysis which involved analysis of discursive practice to determine how participants interpret, reproduce or transform text within and at the same time, beyond the virtual learning environment to the wider healthcare disciplines.
- iii. Social analysis or interactional analysis which involved the exploration of the ways in which nurses and other allied health professionals use language for communication in healthcare practice.

The three analyses were conducted in an integrated manner as intended in the framework of intertextual analysis by Fairclough ^[41] whereby the interconnections of the 3 dimensions of text were examined.

3.2.4 Rigour

As pointed out by Fairclough ^[35], engaging in social and ethnographic research over a significant period of time was important for any textual analysis in social research to be framed adequately. This was so when based on Fairclough's concept of discourse as social practices, analysis of the online text would have to be conducted in the appreciation that the participants' discursive conduct/practice were in a larger context beyond the online environment. This meant analysis would rely heavily on the analysts' sensitivity to the historical and social contexts in which the text is in connection with.

The impetus for this study arose from the concerns of the first and third authors as healthcare educators for successful interprofessional online learning. The platform from which the two authors had discursively constructed the knowledge of nurses' discursive behaviour was based on the authors' ontological and epistemological position in medicine, nursing, and healthcare, specifically in relation to the understanding of nurses' language and its effects. The mediation of links between text and context in this study were therefore made based on the two authors' knowledge, experience and sensitivity of the relevant orders of nursing discourse.

However, whilst the nursing and healthcare background of the two authors could add value to the study, it might also put them at risk of riding roughshod over the data. For this reason, the data was scrutinised through repeated careful readings. The findings were then shared with 6 of the online participants (4 nurses, IODP lecturer, 1 OT) for member checking. Also, nursing and medical colleagues within and outside the faculty were consulted for their views of the interpretation and explanation of the data. These strategies were employed to guard against any political and biased views that might have been subliminally imposed on the analysis.

4 Results

4.1 Nurses led and dominated discussions

In line with the theoretical underpinnings of this study, the findings identified how power-relations were discursively created in the interprofessional online interactions. Messages, especially by nurses in leadership roles; managerial and educational positions (n=4) and nurse lecturers (n=3) often appeared as the first few responses in the majority of discussion threads. Such phenomenon was prevalent in both the original discussion threads started by the e-moderator and those initiated by these few nurses. It was evidenced that these few nurses were responding to any new messages within a short space of time and were quick to digress to related topics and to initiate new discussion threads. These newly created topics were then quickly responded to by the same few nurses. This automatically created the impression that nurses were in the lead of discussions, it also created the impression that nurses were able to dominate discussions. This power relation as created by the discursive behaviour was then maintained and reinforced in nurses' messages, as evidenced in the tying words, genres found in the text as revealed through the integrated textual, interdiscursive and social analysis based on the 3-D framework.

4.2 Nurses' messages resembling written texts for one way communication

Nurses' messages which form the earlier few messages and occur in large volumes shared similar characteristic features with messages initiated by the e-moderator. They were generally lengthy with a high average word count of 140 words per message. Such lengthy messages resemble written text rather than any conversational dialogue which is usually short to allow the 'next turn proof procedure' ^[41]. Another characteristic feature of nurses' messages resembling written text was the heavy use of lexical items as content words compared to the use of grammatical items as functioning words. This resulted in a high ratio of lexical contents to grammatical items, giving rise to a high lexical density which is a characteristic feature of written text ^[42] (see Table 2).

Table 2. Nurses messages displaying high lexical density

<p><i>"As the title reads, New York emergency room RN, a lot of the information may be Americanised, but it has information of many other countries including UK..."</i> Student 11 (Nurse) – Week 4/'Resourcing elearning'</p>	<p>16 lexical items: 11 grammatical items</p>
<p><i>"Co-ordination/communication-There are several National programmes happening simultaneously eg. NPfIT, KSF, WDC, NHSU yet until lately these have tended to develop independently..."</i> Student 9 (Nurse) – Week 3/'A future of elearning in the NHS'</p>	<p>13 lexical items: 09 grammatical items</p>

Fairclough ^[40] asserts that written texts have very few dialogical elements, simply because they are meant for one way communication. He ^[40] also highlights two other important aspects of written text. First, it requires a degree of independence both from the writing (in this case, type-writing) and reading process. Second, it is constructed with a particular readership in mind. Written texts are therefore oriented to particular receptions ^[40]. In this regard, response rate and the type of response to the written text in the conference were highly dependent on the interpretation peers made from reading nurses' messages. The interpretations would in turn be heavily influenced by common-sense assumptions and expectations which were the common-sense knowledge of readers as interpreters. Fairclough ^[40] identified this common-sense knowledge as 'members resources' and highlighted its importance as essential for interpreters who would otherwise find it difficult to make sense of the written texts.

4.3 Nurses' text projected as evidence-based information

Keeping in mind the various characteristics and the attributed effects of written text on readers, another observation about nurses' messages through interdiscursivity analysis revealed a high resemblance of their genres with what one would find in academic writing in higher education. Very often, nurses' views were referenced to published work (see Table 3), just as the e-moderator has done in her messages posted to initiate discussions. The use of supporting evidence from published sources in nurses' messages might not have been anything more than just referencing conventions used for substantiating any argument in a piece of written assignment in higher education^[44].

Table 3. Nurses messages resemble academic writing in higher learning

<p>"...Bencze (2004) indicates... Vygotsky (1978) highlights that scaffolding should enable learners to perform activities that they were unable to perform without this support... Winnips (2001) supports this by emphasising..."</p> <p>Student 8 (Nurse) – Week 5/'eLearning as an emerging pedagogy'</p>
<p>"... Jarrold, 1996, quoted in Hadley and Clough, 1996, p19) whilst making a tour of an NHS establishment)..."</p> <p>Student 6 (Nurse)/Week 7/'Communities of practice'</p>
<p>"...and altered practice, 'developing their field of expertise rather than focusing on a particular task.' (Allee 2000)..."</p> <p>Student 7 (Nurse)/Week 7/'Communities of practice'</p>
<p>"...I found this definition of Blended Learning - (Centra Software 2001) "Blended learning focuses on optimising achievement of learning objectivestransfer the 'right' skills to the 'right' person at the 'right' time". (Singh, Reed 2001)."</p> <p>Student 6 (Nurse) – Week 8/'Blended learning'</p>

However, interdiscursivity and social analyses revealed further intentions of nurses' use of published sources. In the current healthcare climate, evidence-based practice was strongly emphasised: it was to basically do nothing more than to justify nursing interventions^[44]. In this regard, nurses' enthusiasm in justifying their views aligned with their rhetorical moves in creating the impression that their construction of knowledge was based more on an objectivist or universalised view. Also, for any healthcare information to be considered evidence-based, it was required to have been consistently and systematically identified, evaluated and selected from various sources which might not have been exclusively based on empirical research^[45-47]. In other words, good evidence-based information would have to be one which was given with references to many contexts, reflecting consensus, recommendations and affirmed experiences in clinical practice. It does not always have to be research based. Hence, in places where there was an absence of in-text citation, the phrase 'many staff' and the pronoun 'we' were used strategically to make frequent assumptions about a singular perspective that applied to other situations, all of which had been assessed and evaluated, to create a general pattern of events to give rise to the production of evidence-based information.

In other words, irrespective of whether there was use of external referencing, information offered by nurses was seen to be attempting to create the impression that information from them was evidence-based and therefore was highly denotative in nature. If indeed the impression of nurses' knowledge based on an objectivist or universalised view, was created in the readers' minds, the information provided by nurses was not likely to be challenged or contested, simply because acceptability of denotative knowledge had the potential to give rise to an expert and professional class^[48].

4.4 Nurses' text resembling nursing documentation by which power-relations is embedded

Interactional and social analyses revealed yet another characteristic feature of nurses' text. Not only were nurses' text rendered to create the impression that nurses' knowledge were evidence-based, they were also executed to resemble the genres of nursing documentation comprising medical and technical terminologies which were left un-clarified. Such discursive practices were pervasively observed in many messages by nurses (see Table 4). Apparently in practice, the use of medical terminologies in nursing documentation was a way in which nurses sought alignment in nursing with the medical profession^[30]. This might also have been the case within the online learning environment.

Table 4. Nurses messages comprise medical and technical terminologies

<p>“...KSF ... WDC... NEYL...” Student 9 (Nurse) – Week 3/‘A future of elearning in the NHS?’</p>
<p>“...Indeed this would appear to be an 'acid test' of the effectiveness of the emoderator!...” Student 8 (Nurse) – Week 5/‘eLearning as an emerging pedagogy’</p>
<p>“Oh yes, blended approach will at least give us some hopes in preventing deep vein thrombosis, pressure sores, backache, headaches, etc.... and even the new diagnosis..... 'internet syndrome' (http://www.chinadaily.com.cn/english/doc/2004-02/12/content_305555.htm...)” Student 6 (Nurse) – Week 8/‘Blended learning’</p>
<p>“...From my crude experiment I have observed that a blended learning approach can support class room learning...” Student 13 (Nurse) – Week 8/CF/‘Blended learning’</p>
<p>“... just look around us, the symbiotic relationship works well as it balance the ecosystem, by keeping a healthy relationship going. So long it is not parasytic, we should be...” Student 11 (Nurse) – Week 12/CF/‘Evaluating e-learning’</p>

Without interviewing nurses, it could be argued that the observation did not predict with reasonable certainty what the intentions of such nurses’ rhetorical discursive acts were. Nevertheless, evidently while medicine never ceased taking the lead in healthcare, nurses in this conference were seen to relentlessly initiate discussions. If the rhetorical move in the online messages by nurses had indeed the same purpose as that of nursing documentation, clearly nurses’ text had the additional capacity to further reinforce the superior position of nursing as distinct and as professional as that of medicine within the virtual learning environment.

Other than the functional effect of nursing documentation, it is important to know that particularly with care planning, nursing documentation comprised the legitimate nursing diagnoses of patients’ problems^[49]. Also, these diagnoses and the subsequent nursing treatment plans were based on nurses’ unique knowledge to guide nursing practice. Yet, the contents were communicated to non-nursing healthcare professionals for actions^[50]. In this regard, nursing documentation as an important source of social regulation of patients’ activities of daily living was also a critically dominant source of governmentality^[51] which targeted not only nurses, but also all other allied health professionals^[50]. Given the fact that nursing documentation was indeed implicated by medicine, constructing the online text which shared its genres, nurses would have no problem constructing their legitimate position to assess and judge learning within the interprofessional online learning space. This became obvious when the legitimate position to judge and control others’ learning was assumed by nurses in this conference. Apparently they did so without any reservations (see Table 5).

Table 5. Nurses taking the role as ‘teacher’ and ‘assessor’

<p>“You’re absolutely spot on...before you...you must...Your comment on...was a good one...” Student 5 (Nurse)/Week 3/‘A future of e-learning in the NHS?’</p>
<p>“...You are also right that staff should not be wearing headphones when caring for patients. Good point and definitely noted.” Student 9(Nurse)/Week 8/‘Blended learning?’</p>
<p>“Good on you Student 9, I’m glad that you’re finding your niche here...” Student 11(Nurse)/Week 8 /‘Blended learning?’</p>
<p>“...this is what the options were for...instead of opening each document...what we can do is...for people who...do the following: 1...2...3...For those wish to...do step 1, 2, 3 and then continue 4...5...6...7...8...” Student 11 (Nurse) – Week 12/‘evaluating virtual learning environment’</p>

5 Discussion

There may be other approaches to make sense of the online messages. However, Fairclough's^[40] CDA facilitated a critical view of the text to describe its effects and provided good insights into the phenomenon^[52]. The texts by nurses were very similar to that produced by the e-moderator and unlike those found in other computer mediated conferencing research studies which showed communications were more like informal oral conversations spoken in a face-to-face dimension^[53, 54]. With regards to the e-moderator, the characteristic features of her text might have been a result of their intentions to initiate and guide discussions. As for nurses as online participants, the formal discourse which resembled written text suggested that they viewed the conferencing as a form of academic exercise and perhaps, a form of summative assessment in higher education. This was despite the fact that nurses along with all other participants were made aware that the online discussions were not graded in this module.

By employing Fairclough's^[40] approach to CDA, this study revealed the intentions of nurses' messages to be far more complicated than that of written text produced for assessments in higher education. Based on textual analysis, the rhetorical moves made by nurses were clearly putting across ideas with assertion aimed at gaining acceptability rather than presenting them as opinions for modulation through negotiation and discussions. By mirroring the genres of written text specifically that of academic writing in higher education and nursing documentation, nurses' language became formal and objectifying. Any coordinating or subordinating conjunctions which were required for the text to be dialogical were not used.

In the absence of the required conjunctions to engage with the readers to modulate the presented views, but the presence of published work as references to substantiate them instead, the messages created a specific impression; that was, any presented ideas in the text were already decided by its creator, for they were well supported by experts as well as a broad range of external sources and hence credible. In this way, the position of nurses as the knowledgeable teacher with others, as learners was discursively created. When a non-dialogical divide was set between the creator of the message with the informed knower and the readers as passive receivers of the presented knowledge, the issues and topics in question could not be opened for discussion.

These two discursively created positions; a nurse as the 'expert teacher' and the others as the 'passive learners' were further reinforced by the rendering of the texts to resemble the genres of nursing documentation. Upon integrating textual analysis with interactional and social analyses, it was found that the heavy use of medical terminologies, not only further put nursing in alignment with the elite medical profession, it also reinforced the dialogical divide between nurses as the authoritative experts and the allied health professionals as learners.

Many medical terminologies were borrowed in the development of nursing^[49, 50]. For this reason, nurses would have possessed prior knowledge in the context of nursing which was external to the online conference. In other words, the important 'common resource' in Fairclough's^[35] term, which was important for interpreting the messages and possessed by nurses in managerial and leadership positions might be something which was not available to every allied health professional. If this was the case, when medical terminologies were presented without being accompanied by the required clarifications, nurses were likely to have the ability over their non-nursing colleagues to solve the word problem.

The important point here is, when nurses knew and share that 'common resource', they were able to participate actively in discussions. Consequently, a large volume of contributions from nurses utilising the 'common resource' was produced and this further excluded the minority few nurses at operational levels and non-nursing professionals in discussions. This could happen easily simply because these nurses and the allied health professionals lacked that 'common resource'. In addition, it is important to note that albeit the aim of nursing documentation in clinical practice to achieve interdisciplinary communication for effective patient care, its functional effects were to guide practice of other nurses and also the non-nursing healthcare professionals. In this regard, genres of text which resembled nursing documentation had the ability

to put its creator in a hierarchical position and be seen as a 'teacher' and an 'assessor' with the legitimacy in governing and dictating what and how others learn.

In essence, it was the lexico-grammatical patterns and the tying words in many nurses' messages, particularly the medical and technical terms that had invoked the discourse of medicine and nursing, which further reinforced the position of nurses as the legitimate authoritative knower – an ideological concept which was already established in practice based on nursing documentation. As a result, nurses' views would more likely to be accepted passively rather than to be contested or challenged. Given this circumstance, dialogical reflections based on a more interactive and discovery style of learning in the approach to interprofessional learning^[56] was unlikely to occur. Consequently, innovative and creative ideas as expected in any interprofessional online learning would not have emerged.

6 Conclusions

Nurses' language in interprofessional learning appeared to be predominantly formal and objectifying that the genres of messages produced by nurses resembled those found in written texts. The genres were nevertheless a reflection of academic writing and nursing documentation and were hence, multimodal and hybrid. However, whether it was done deliberately or subliminally, many medical terminologies and plain teacher instruction genres were inextricably confounded in nurses' messages which comprised information that were frequently referenced to published work.

Such discursive behaviour reproduced the dominance of nurses, particularly in terms of nursing knowledge over nurses in the lower hierarchical positions in nursing as well as the allied health professionals. Potentially, nurses' elitism by the few nurses in higher hierarchical nursing position, as seen in healthcare could be discursively created and also, reinforced within the interprofessional online learning environment. Messages which identified the few nurses as knowledgeable 'teachers' and legitimate assessors might be useful for those lacking knowledge and seeking to assimilate it. However, such discursive behaviour would be a great hindrance to interprofessional learning where collaborative rather than didactic learning is essential for its success.

The use of Fairclough's CDA has allowed the links between text and the underlying power structures within health care to be made. As such nurses' discursive practices and the social implications which followed from the way language was used within an interprofessional online learning environment were explained. Whilst it is appreciated that these understandings of nurses' discursive practices might not be permanent and stable across all interprofessional learning groups in health and social care, the composition of interprofessional learning group is similarly to that in the current study, that nurses made up the larger population of interprofessional online learning groups. Hence, without aiming to generalise language usage, this study had described the interrelationships of text, interactions, and social practice, hence making explicit the social implications as a result of the way language would have been used in any interprofessional online learning.

In essence, the study has provided good insights into the way in which an interprofessional learning situation can be potentially rendered into a social space by which the power-relations between nurses and the allied health professionals were discursively created, maintained and reinforced. These understandings as revealed in this study are valuable and should be shared with nurses, so that efforts can be channelled to address the root cause of problematic interprofessional relationship. More importantly, this study could inform future work on interprofessional learning in health and social care, such that attention can be redirected to address the discursive practices of nurses.

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References

- [1] McPherson K, Headrick L, Moss F. Working and learning together: good quality care depends in it, but can how can we achieve it? *Quality in Health Care*. 2001; 10(2): 46-53. PMID:7953214
- [2] McWilliam C, Sangster F. Managing patient discharge to home: The challenges of achieving quality of care. *International Journal of Quality in Health Care*. 1994; 6(2): 147-161.
- [3] Connor C. Virtual learning and interprofessional learning education: developing computer mediated communication for learning about collaboration. *Innovations in Education and Teaching International*. 2003; 40(4): 341-347.
<http://dx.doi.org/10.1080/1470329032000128379>
- [4] Sandars J, Langlois M. Online collaborative learning for healthcare continuing professional development: lessons from the recent literature. *Education for Primary Care (EDUC PRIM CARE)*. 2006; 17(6): 584-592.
- [5] United Kingdom Centre for the Advancement of Interprofessional Education (CAIPE). *Interprofessional Education - a definition*. CAIPE Bulletin.1997; 13: 19.
- [6] Hamilton B, Manias E. She's manipulative and he's right off: A critical analysis of psychiatric nurses' oral and written language in the acute inpatient setting. *International Journal of Mental Health Nursing*. 2006; 15(2): 84-92. PMID:16643343
<http://dx.doi.org/10.1111/j.1447-0349.2006.00407.x>
- [7] Liu W, et al, Medication communication between nurses and patients during nursing handovers on medical wards: A critical ethnographic study. *Int. J. Nurs. Stud*. 2012. PMID:22385912 <http://dx.doi.org/10.1016/j.ijnurstu.2012.02.008>
- [8] Loke J C F. Researching Nursing Student Perspective on Interprofessional Online Learning via Asynchronous Text-based Conferencing in Higher Education: A Literature Review. *Journal of Nursing Education and Practice*. 2012; 2(2): 141-150.
<http://dx.doi.org/10.5430/jnep.v2n2p141>
- [9] Barr H, Freeth D, Hammick M, Koppel I, Reeves S. Evaluations of interprofessional education: A United Kingdom review for health and social care. CAIPE/BERA.2000.
- [10] Curran V R, Sharpe D, Forristall J, Flynn K. Attitudes of health sciences students towards intrprofessional teamwork and education. *Learning in Health and Social Care*. 2008; 7(3): 146-156. <http://dx.doi.org/10.1111/j.1473-6861.2008.00184.x>
- [11] Hojat M, Fields S, Rattner S, Griffiths M, Cohen M, Plumb J. Attitudes toward Physician – Nurse Alliance: Comparisons of Medical and Nursing Students. *Academic Medicine*. 1997; 72(10): S1-S3. PMID:9347721
<http://dx.doi.org/10.1097/00001888-199710001-00001>
- [12] Mu K, Chao C, Jensen G, Royeen C. Effects of interprofessional rural training on students' perceptions of interprofessional health care services. *Journal of Allied Health*. 2004; 33(1): 125-131. PMID:15239410
- [13] Tunstall-Pedoe S, Rink E, Hilton S. Student attitudes to undergraduate interprofessional education. *Journal of Interprofessional Care*. 2003; 17(2): 161-172. PMID:12745298 <http://dx.doi.org/10.1080/1356182031000081768>
- [14] Pollard K C. Non-formal learning and interprofessional collaboration in health and social care: the influence of the quality of staff interaction on student learning about collaborative behaviour in practice placements. *Learning in Health and Social Care*. 2008; 7(1): 12-26. <http://dx.doi.org/10.1111/j.1473-6861.2008.00169.x>
- [15] Zwarenstein M, Reeves S. Knowledge translation and interprofessional collaboration: where the rubber of evidence-based care hits the road of teamwork. *The Journal of Continuing Education in Health Care*. 2006; 26(1): 46-54. PMID:16557506
<http://dx.doi.org/10.1002/chp.50>
- [16] Arksey H, Snape C, Watt I. Roles and expectations of a primary care team. *Journal of Interprofessional Care*. 2007; 21(2): 217-219. PMID:17365394 <http://dx.doi.org/10.1080/13561820601076867>
- [17] Atwal A, Caldwell J. Do all health and social care professionals interact equally? A study of interactions in multidisciplinary teams in the United Kingdom. *Scandinavian Journal of Caring Science*. 2005; 19(3): 268-273. PMID:16101855
<http://dx.doi.org/10.1111/j.1471-6712.2005.00338.x>
- [18] Pollard K, Miers M, Gilchrist M. Collaborative learning for collaborative working? Initial findings from a longitudinal study of Health and Social Care education. *Health Social Care in the Community*.2004; 12(4): 346-258. PMID:15272890 <http://dx.doi.org/10.1111/j.1365-2524.2004.00504.x>
- [19] Scholes J, Vaughan B. Cross-boundary working: Implications for multiprofessional team. *Journal of Clinical Nursing*, 2002; 11(3): 399-408. PMID:12010538 <http://dx.doi.org/10.1046/j.1365-2702.2002.00634.x>
- [20] Barrett G, Keeping C. The processes required for effective interprofessional working. In G Barrett, D Sellman, J Thomas (Ed.). *Interprofessional working in Health and Social Care*. UK, Basingstoke: Palgrave MacMillan. 2005: 18-31.
- [21] Laursen M, Brocklehurst H. Interprofessionalism, personalisation and care provision. *British Journal of Community Nursing*. 2011; 16 (4): 184-190. PMID:21471921

- [22] Meads G, Ashcroft J. Policy into practice: collaboration. In G Meads, J Ascroft (Eds.). *The Case for Interprofessional Collaboration in Health Social Care*. Oxford, UK: Blackwell Pub; 2005. 15-35. <http://dx.doi.org/10.1002/9780470776308.ch2>
- [23] Walsh C L, Gordon M E, Marshall M, Wilson F, Hunt T. Interprofessional capability: a developing framework for interprofessional education. *Nurse Education in Practice*. 2005; 5(4): 230-237. PMID:19038204 <http://dx.doi.org/10.1016/j.nepr.2004.12.004>
- [24] Randler J. Bullying in the Nursing Profession. *Journal of Advanced Nursing*. 2003; 43(4): 395-401. PMID:12887358 <http://dx.doi.org/10.1046/j.1365-2648.2003.02728.x>
- [25] Shields M, Wilkins K. Findings from the 2005 National Survey of the Work and Health of Nurses. Statistics Canada, Health Canada, and Canadian Institute for Health Information. 2006. Available from, <http://dsp-psd.pwgsc.gc.ca/Collection/Statcan/83-003-X/83-003-XIE.html>, on 10 October 2011.
- [26] Begley C. 'Great fleas have little fleas': Irish student midwives' views of the hierarchy in midwifery. *Journal of Advanced Nursing*. 2002; 38(3): 310-317. PMID:11972672 <http://dx.doi.org/10.1046/j.1365-2648.2002.02181.x>
- [27] Baumann A, O'Brien-Pallas L, Armstrong-Stassen M, Blythe J, Bourbonnais R, Cameron S, Doran D I, Kerr M, McGillis L, Zina M V, Butt M, Ryan L. Commitment and Care: The Benefits of a Healthy Workplace for Nurses, their Patients and the System. Canadian Health Research Foundation. 2001. Available from: http://28784.vws.magma.ca/funding_opportunities/commissioned_research/polisyn/pdf/pscomcare_e.pdf. downloaded on 10 February 2011.
- [28] O'Connell B, Young J, Brooks J, Hutchings J, Lofthouse J. Nurses' perceptions of the nature and frequency of aggression in general ward settings and high dependency areas. *Journal of Clinical Nursing*. 2000; 9(4): 602-610. PMID:11261143 <http://dx.doi.org/10.1046/j.1365-2702.2000.00401.x>
- [29] Woelfle C Y, McCaffrey R. Nurse on Nurse. *Nursing Forum*. 2007; 42(3): 123-131. PMID:17661804 <http://dx.doi.org/10.1111/j.1744-6198.2007.00076.x>
- [30] Irving K, Treacy M, Scott A, Hyde A, Butler M, MacNeela P. Discursive practices in the documentation of patient assessments. *Journal of Advanced Nursing*. 2005; 53(2): 151-159. PMID:16422713 <http://dx.doi.org/10.1111/j.1365-2648.2006.03710.x>
- [31] Brito B P R. The road towards the identity of nursing. *Metas de Enfermeria (METAS ENFERM)*. 2007; 10(2): 51-54.
- [32] Fawcett J. Writing, reviewing and editing for other disciplines: Tips for retaining the nursing language. *Newsletter for Nurse Authors & Editors and Editorial Board Members*. 2001: 1-3.
- [33] Flanagan J, Jones D A. Nursing Language in a Time of Change: Capturing the focus of the discipline. *Institutional Journal of Nursing Terminologies and Classifications*. 2007; 18(1): 1-2. PMID:17430530 <http://dx.doi.org/10.1111/j.1744-618X.2007.00040.x>
- [34] Watson M J. Watson's theory of transpersonal caring. In P. H. Walker, B. M. Neuman. (Ed) *Blueprint for use of nursing models: Education, research, practice, and administration*. New York: NLN Press; 1996: 141-184.
- [35] Fairclough N. *Critical Discourse Analysis: the critical study of language*. England: Longman; 1995.
- [36] Halliday M A K, Hasan R. *Cohesion in English*. London: Longman; 1976.
- [37] Bakhtin M. *Speech genres and other late essays*. Austin, Texas: Texas University Press; 1986.
- [38] Foucault M. *The Archaeology of knowledge and discourse on language*. Harmondsworth, UK, Penguin Books.1972.
- [39] Fairclough N. *Language and power*. London: Longman; 1989.
- [40] Fairclough N. The discourse of new labour: Critical discourse Analysis. In M Wetherell, S Taylor, S J Yates (Ed.) *Discourse as Data. A guide for analysis*. London, Sage/Open University; 2001: 229-266.
- [41] Hutchby I, Woofit R. *Conversational Analysis*. Malden MA: Blackwell Pub. 1998.
- [42] Halliday M A K. *Spoken and written language*. Victoria: Deakin University Press; 1985.
- [43] Coffin C, Curry M J, Goodman S, Hewings A, Lillis T, Swann J. *Teaching Academic Writing: A Toolkit for Higher Education (Literacies)*. London: Routledge; 2003.
- [44] Aveyard H, Sharp P. *A Beginner's Guide to Evidence Based Practice in Health and Social Care*. London: McGraw-Hill. 2009.
- [45] Jennings B, Loan L. Misconceptions among nurses about evidence-based practice. *Journal of Nursing Scholarship*. 2001; 33(2): 121-127. PMID:11419306 <http://dx.doi.org/10.1111/j.1547-5069.2001.00121.x>
- [46] Roberts K L. Evidence-based practice: an idea whose time has come. *Collegian*. 1998; 5(3):24-27. [http://dx.doi.org/10.1016/S1322-7696\(08\)60297-8](http://dx.doi.org/10.1016/S1322-7696(08)60297-8)
- [47] Rolfe G. The deconstructing angel: nursing, reflection and evidence-based practice. *Nursing Inquiry*. 2005; 12 (2): 78-86. PMID:15892723 <http://dx.doi.org/10.1111/j.1440-1800.2005.00257.x>
- [48] Lyotard J. *The Postmodern Condition*. Minnesota: University of Minnesota Press. 1984.
- [49] Yura H, Walsh M B. *The Nursing Process: Assessing, Planning, Implementing, Evaluating*. 2nd ed. New York: Appleton-Century-Crofts; 1973.

- [50] Hyde A, Treacy M M, Scott A P, Neela P M, Butler M, Drennan J, Irving K, Byrne A. Social regulation, medicalisation and the nurse's role: Insights from an analysis of nursing documentation. *International Journal of Nursing Studies*. 2006; 43(6): 735-744. PMID:16309685 <http://dx.doi.org/10.1016/j.ijnurstu.2005.10.001>
- [51] Foucault M. *Discipline and punish: The birth of the prison*, translated by A. Sheridan, Harmondsworth: Peregrine; 1977.
- [52] Loke J C F, Colquhoun D, Lee K W. *Critical Discourse Analysis of Interprofessional Online Learning in Healthcare Education*. New York: Nova Science Pub; 2011.
- [53] Fernback J. Legends on the net: an examination of computer-mediated communication as a locus of oral culture. *New Media and Society*. 2003; 5(1): 29-45. <http://dx.doi.org/10.1177/1461444803005001902>
- [54] Yates S J. Researching Internet Interaction: Sociolinguistics and Corpus Analysis. In M. T. Wetherell, S. Yates (Ed) *Discourse as Data: A Guide for Analysis*. London: Sage; 2001: 93-146.
- [55] Lloyd-Jones N, Hutchings S, Hobson S H. Interprofessional learning in practice for pre-registration healthcare: Interprofessional learning occurs in practice -Is it articulated or celebrated? *Nurse Education in Practice*. 2007; 7(1): 11-17. PMID:17689419 <http://dx.doi.org/10.1016/j.nepr.2006.03.002>