The occupational prestige of physiotherapy: Perceptions of student physiotherapists in Australia

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Within the framework of occupational prestige assessment, this survey was carried out amongst future physiotherapists in Australia to determine their perceived standing of physiotherapy relative to a range of occupations including several within the medical field. A questionnaire was administered to 258 undergraduate physiotherapy students. Twelve occupations were rated on six dimensions, i.e., levels of income, education, social standing, responsibility and usefulness, and the proportion of women. The results indicate that amongst future physiotherapists in Australia, their profession possesses relatively high status, together with solicitor, doctor and judge, and is differentiated from the proximate professions of nurse and chiropractor. These results are similar to those obtained from the Australian public, and are in distinct contrast to the perceptions of the profession that emerged amongst physiotherapy students in England. Physiotherapy in Australia is held in high esteem – it has a clear identity and professional status, and is likely to be seen as a desirable future occupation for both genders. [Turner P (2001): The occupational prestige of physiotherapy: Perceptions of student physiotherapists in Australia. Australian Journal of Physiotherapy 47: 191-197]

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Introduction

A characteristic of any profession is that it occupies a social standing relative to other professions (Whitfield et al 1996), and according to Daniel (1983), social position in modern society is determined to a great extent by occupation (or one’s parents’ occupations) rather than inherited standing. Certain professions, including medicine, politics and the legal professions, are associated with power, prestige and material reward (Daniel 1983). There is also evidence that a person’s character, level of intelligence and education, ability and personal acceptability are assumed from an occupational label (Chung and Whitfield 1998, Daniel 1983).

Not surprisingly, the standing of an occupation is frequently of interest to its members (Daniel 1983) and physiotherapy is no exception. Several studies provide information concerning the prestige of physiotherapy in various countries. In an international journal Sim (1985) suggests that physiotherapy generally has had little in the way of professional status granted to it by commentators outside of the profession, whilst David (1985) expressed the view that physiotherapy in South Africa has a poor image amongst certain medical practitioners and laymen. Comparable views have been expressed more recently in the UK (Jones 1997, Tavis 1993) and in the context of marketing the profession, are clearly a concern (Bennet 1991, Jones 1997, Sheppard 1994 and 1995).

A number of studies have examined the perceptions of physiotherapy, and have elicited information from diverse groups such as patients and non-patients (Mouton 1982), high school students (Tsuda et al 1982), medical practitioners (Moncur 1987, Mouton 1982) and practising physiotherapists (Miles-Tapping et al 1993). Studies have focused mainly on the perceived characteristics of physiotherapists (Johnson 1993, Mouton 1982, Parker and Chan 1986), or what is known about the profession and the services it provides (Moncur 1987, Morford and Goodley 1981, Sheppard 1994). The consensus is that the public associates the profession with exercise and the treatment of musculoskeletal conditions, and seems unaware of the range and extent of physiotherapeutic services (Jones 1997, Morford and Goodley 1981, Sheppard 1994). Physiotherapy seems to lack a clear identity, with some evidence suggesting that the public and even health care professionals are unable to differentiate physiotherapy from related health care professions (Whitfield et al 1996).

Few studies have evaluated the profession relative to other occupations (Turner and Whitfield 1999, Whitfield et al 1996). This is a serious omission in terms of marketing, because the strength of the competition must be known and understood. Marketing the profession should be considered not only in terms of service uptake, but also in terms of its desirability as a prospective occupation, because the profession clearly requires sufficient clinicians of the highest calibre if future demands are to be met.

Relatively few studies have evaluated physiotherapists’ own perceptions of their profession, particularly related to other occupations. Mouton (1983) evaluated the professional
image of a South African physiotherapy department, and found that amongst physicians, physiotherapists, paramedical staff and patients, the department was perceived to have an equally positive image. A more recent study in England found that both physiotherapy students and the public rated physiotherapy as an intermediate occupation - alongside police constable and osteopath - rather than as a profession (Whitfield et al 1996). According to Miles-Tapping et al (1993), only a small percentage of Canadian physiotherapists identified themselves as members of a career-rewarding health profession, and many considered that the profession lacks power.

This present study examined the perceived prestige of physiotherapy relative to other occupations – specifically to nurse, chiropractor, doctor and legal professions - amongst physiotherapy students in south eastern Australia. The study was a replication of the questionnaire survey carried out in England (Whitfield et al 1996) and involved the perceptions of physiotherapy undergraduate students. University undergraduate students’ assessments of professions have been found to be socially representative and are no different from those made by the general public (Daniel 1983). In addition, interest lay in the similarities or differences in perceptions between physiotherapy students in Australia and the UK, and between Australian physiotherapy students and those of the Australian public (Chung and Whitfield 1998, Turner and Whitfield 1999, Whitfield et al 1996).

**Method**

The study, a replication of one carried out in England (Whitfield et al 1996) was designed within the tradition of occupational prestige assessment. It consisted of a questionnaire in which occupations/professions were assessed and compared on dimensions indicative of what broadly can be described as social standing (MacKinnon and Langford 1994). The dimensions employed were derived from the above studies (Chung and Whitfield 1998, MacKinnon and Langford 1994, Whitfield et al 1996), and consisted of the key variable level of social standing, in addition to level of education, level of responsibility, level of income, and “usefulness as a profession”. A sixth dimension, proportion of women in the profession, was also included. While not strictly a measure of occupational standing, its inclusion reflected observations by a number of authors regarding gender differences associated with professions and the perceived standing of those professions (Fox and Suschnigg 1989, Sim 1985). The professions to be assessed in the questionnaire were also taken from the above studies. The 12 professions used were judge, solicitor, architect, doctor, physiotherapist, nurse, chiropractor, police constable, mechanic, postperson, barperson and cleaner.

The main research questions addressed were:

- How is physiotherapy perceived by future physiotherapists?

- What is its position relative to other professions?

**Subjects** The study used a convenience sample of 258 undergraduate physiotherapy students (33% male; 67% female) from one university in Melbourne. Students were from years one to three of their degree courses, (representing respectively 32%, 35% and 33% of the sample). Ages ranged from 17 to 41 years (mean 20.5 years, SD 3.3).

**Questionnaire, procedure and instructions** Permission to conduct the study was obtained from the Head of the School of Physiotherapy at La Trobe University, following formal approval of the project by a university Human Ethics Committee. The questionnaire involved the rating of the 12 professions on each of the six dimensions described above. The ratings were carried out using a six point, bipolar interval scale of tick-boxes with “low” at one extreme and “high” at the other. Each profession was rated separately on a scale of low (1) to high (6) on level of responsibility, level of education, etc. The boxes ticked were converted to their numerical value (1-6) when data were entered into the spreadsheet. Possible order effects were countered by randomly administering four versions of the questionnaire: two orders of the professions (first order and reverse) and two orders of the dimensions (first order and reverse). The author administered the questionnaires to volunteer student groups, with instructions pre-determined in order to ensure consistency. In addition, the first page of the questionnaire explained the purpose of the project, namely, to determine peoples’ perceptions of various occupations, illustrated the use of the rating scale, and assured anonymity. The questionnaires were administered to each student cohort following a group lecture for each respective year-group.

**Analyses** The Statistical Package for the Social Sciences (SPSS) was used in the analyses. A repeated measures analysis of variance (ANOVA) was performed separately on the data obtained for each of the dimensions. For each analysis the within-subjects factor was the 12 professions. The between-subjects factors were year of study; age of student and order. Given the extent of multiple statistical inference involved in the study, $p < 0.01$ was accepted as
Figure 1. Mean ratings of occupational prestige on six dimensions: A: level of education; B: level of income; C: level of social standing; D: level of responsibility; E: level of usefulness; F: proportion of women.
denoting statistical significance.

The level of agreement between participants for each dimension was measured using Kendall’s coefficient of concordance (Kendall’s $W$).

Finally, Multidimensional Scaling Analysis (MDS) was performed on the data, and the results for overall prestige standing are presented in figure form. These analyses were non-metric MDS, using ordinal measures in an Euclidean space restricted to two dimensions. Kruskal’s Stress, a measure of goodness of fit between the data and its spatial representation, was 0.027 (excellent; Kruskal 1964), and the proportion of variance in the scaled data that was accounted for by their corresponding distances in the space exceeded 99% with an RSQL (squared correlation in distances) value of 0.997. Comparable methods have been used to depict physiotherapists’ journal readership (Turner and Whitfield 1996), physiotherapy techniques (Turner and Whitfield 1997), and perceptions of occupational prestige (Chung and Whitfield 1998, Turner and Whitfield 1999, Whitfield et al 1996).

**Results**

The results for English physiotherapy students (Whitfield et al 1996) is given in parentheses alongside those for Australian students. This method was used by Carr et al (1994), comparing Australian and Swedish physiotherapists’ replication survey responses.

The response rate was 96% because very few students in each cohort declined to participate (England 97%).

For each of the ANOVA analyses, the within-subjects factor (ie the 12 professions) was highly significant ($p < 0.0001$). Effectively, the professions were differentiated on each dimension. The analyses for between-subjects factors revealed year effects and order effects for certain dimensions, but no significant age or gender differences, although males tended to rate all professions including physiotherapy lower for all dimensions except the proportion of women. In addition, the level of agreement (Kendall’s $W$) amongst female participants was greater than for males for all dimensions except the level of responsibility (Table 1).

**Level of education** The level of education had the highest degree of consensus (Kendall’s $W$) of all the dimensions (Table 1).

The perceived level of education for the different professions (Figure 1A) placed doctor and judge at the highest level, and barperson and cleaner at the lowest. Physiotherapy was ranked third, with a rating of 5.7. Physiotherapy students differentiated favourably between their own profession and those of chiropractor and nurse (ranked fifth and seventh respectively), and placed themselves between judge and solicitor (Figure 1a; England: physiotherapy ranked fourth with mean rating 5.1, between architect and osteopath).

**Level of income** The degree of consensus (Kendall’s $W$) for this dimension was high, although more moderately so for males (Table 1).

Nurse was positioned just above the three occupations ranked at the lowest extreme (Figure 1B). Physiotherapy was positioned in sixth place with a mean rating of 4.6 (Figure 1B), grouped with chiropractor and architect and well below doctor and judge (England: physiotherapy ranked seventh with mean rating 3.9, grouped with police constable and osteopath).

**Level of responsibility** For this dimension, the degree of consensus (Kendall’s $W$) was moderate, but lower than for education, social standing and income (Table 1).

Physiotherapy was positioned third, below judge and doctor (Figure 1C), with a mean rating of 5.3. Physiotherapy was placed level with police constable, and marginally above nurse and chiropractor for responsibility (England: mean rating 5.1, positioned third).

**Level of social standing** The degree of consensus (Kendall’s $W$) for social standing was high, but lower for males (Table 1).

Physiotherapy was positioned in the top three for social standing (Figure 1D), behind judge and doctor and equal to solicitor, with a mean of 5.1. Physiotherapy was clearly placed above architect, chiropractor and nurse, which all occupy a mid-position (Figure 1D), with nurse placed just above the four lowest-ranking occupations of mechanic, barperson, postperson and cleaner (England: physiotherapy mean rating 4.6, ranked fifth between architect and police constable).

**Level of usefulness** This dimension had a poor degree of consensus (Table 1), with Kendall’s $W < 0.37$. 

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**Figure 2.** Occupational prestige: Euclidean distance model. See text for details. The positions of physiotherapist and solicitor are superimposed, as are those of doctor and judge.
All occupations were accorded at least a moderate rating, with cleaner having the lowest score of 3.4 (Figure 1E). Surprisingly, chiropractor was perceived as being only moderately useful, and is positioned at the lower extreme for this dimension (Figure 1E). Physiotherapy, with a mean rating of 5.3, was positioned third for usefulness, above both nurse and police constable (England: mean 5.0, positioned fourth with police constable, below nurse).

**Proportion of women** The level of agreement (Kendall’s W) for this dimension was moderate, and again lower for males (Table 1). Males perceived physiotherapy to have a lower proportion of women than females (mean rating of 4.9 against 5.1).

Physiotherapy was perceived as having a high proportion of women, positioned second only to nurse (Figure 1F), with a mean rating of 5.0. Doctor, chiropractor, solicitor and architect occupy an intermediate position, neither male nor female dominated. Judge and mechanic occupy the extreme “male dominated” positions (Figure 1F; England: physiotherapy positioned third below cleaner and nurse; mean rating 5.4).

**Multivariate analysis** In order to gain an overview of the professions on the combined dimensions (proportion of women excluded), a two-dimensional multidimensional scaling analysis (MDS) was carried out. The proportion of women was not included because of its tentative status as a measure of occupational prestige standing (Whitfield et al 1996). As in previous studies (Chung and Whitfield 1998, Turner and Whitfield 1999, Whitfield et al 1996), this form of analysis can be used to provide a profile of each of the professions across the various dimensions used in the study. The position of each profession is represented spatially by calculating the proximities between the profiles: the more similar the profiles, the closer together are the professions within the conceptual space. The space can be partitioned, using partition lines, to indicate the grouping of similar profiles. Using this procedure, the physiotherapy students’ perceptions of the occupations are portrayed in Figure 2.

Within the space, the occupations can be divided into three groups (Figure 2), from high prestige standing at the one extreme (doctor and judge, physiotherapist and solicitor) to low prestige standing at the other extreme (barrperson, cleaner, postperson and mechanic). The high prestige group is not differentiated; the professions are closely grouped together, with unitary positions occupied by doctor and judge and by solicitor and physiotherapist, indicating their close perceived similarities. In contrast, the intermediate group, consisting of architect, nurse, chiropractor and police constable shows marked differentiation. Police constable and chiropractor are positioned on opposite sides of the space, because they share certain characteristics in common with this intermediate group but not others. For example, police constable had high levels of responsibility and usefulness whereas chiropractor was perceived as having low usefulness, but higher levels of education and income. The low prestige group is similarly differentiated, with postperson and mechanic separated from cleaner and barperson because the former are perceived as having higher levels of responsibility and usefulness and for mechanic, higher levels of income and education.

**Combined dimensions – rating** Overall, physiotherapy was ranked third with a mean rating of 5.2, above solicitor with 5.1, and behind judge and doctor. Chiropractor and nurse were ranked sixth and seventh respectively with scores of 4.5 and 4.3 (England: physiotherapy ranked fifth, almost equal to police constable with a mean rating of 4.8, and above nurse and osteopath - ranked joint sixth).

**Year effects** Significant year effects (p = 0.001) emerged for levels of education, income, social standing and proportion of women. On the combined dimensions year one rated physiotherapy slightly higher (5.3), compared with years two (5.2) and three (5.1). Year two students rated several professions lower than years one and three.

**Order effects** Significant order effects (p = 0.003) emerged for rating the professions on levels of responsibility, education, usefulness and proportion of women. These order effects only related to physiotherapy for the latter dimension. The presence of such effects nevertheless provides a caution on the dangers of overlooking this potential source of influence in comparable studies. Any non-counterbalanced study of this type could provide misleading information.

**Discussion**

This present study aimed to determine the occupational prestige standing of physiotherapy as perceived by Australian student physiotherapists in relation to other professions. Specific interest lay also in differences in perception between Australian and English student physiotherapists (Whitfield et al 1996). The results indicated that physiotherapy students in Australia rated their profession highly, unlike the middle-ranking status accorded by physiotherapy students in England (Whitfield et al 1996).

The high response rate of 96%, which is attributable to the direct method of questionnaire distribution and retrieval, suggests the results can be considered representative of the population sampled. The main limitation of the survey is that the results are sample-specific and cannot be widely generalised.

By combining the univariate results, a profile of the different occupations was provided.

Among the Australian physiotherapy students, their profession was seen as having high standing for all the dimensions except level of income. Within the medical field it was positioned below doctor, but above nurse and chiropractor, and had high overall prestige standing, allied to the “big three” (Turner and Whitfield 1999) of doctor, judge and solicitor. These results are very similar to those
reported for the Australian public (Chung and Whitfield 1998, Turner and Whitfield 1999), who viewed physiotherapy with almost equally high regard. The Australian public also positioned physiotherapy close to the big three (Turner and Whitfield 1999), and distinct from nurse, which had an intermediate position, although nurse was accorded higher levels of responsibility and usefulness than physiotherapist. Notably, the Australian public considered physiotherapy to have a fairly high level of income (Chung and Whitfield 1998, Turner and Whitfield 1999), compared with the perception of physiotherapy students reported in this study.

In contrast, physiotherapy students in England perceived physiotherapy to have only intermediate standing, together with police constable, nurse, architect and osteopath (chiropractor) and in fact allied themselves with police constable, distant from nurse and osteopath (Whitfield et al 1996). The British public accorded intermediate standing to police constable, nurse, osteopath and physiotherapist and did not differentiate between the three latter occupations (Turner and Whitfield 1999, Whitfield et al 1996). For all dimensions except the proportion of women, Australian physiotherapy students positioned their profession higher than their British counterparts. There were differences also in the physiotherapy students’ perceptions of chiropractor, nurse and police constable. In England the latter two were accorded higher standing than occurred in this present study, whilst the reverse occurred for chiropractor (osteopath; Whitfield et al 1996).

The results of recent international studies involving non-physiotherapy university students in Korea, Australia and England (Chung and Whitfield 1998, Turner and Whitfield 1999) indicate that in Korea and England, physiotherapy is perceived as an occupation, whereas in Australia it appears to have professional status. The major factor that influenced perceived occupational status in England was level of income, whilst in Australia and Korea the major factor influencing perceived prestige standing was the level of education, although level of income also appeared to be a factor in Australia (Turner and Whitfield 1999). Members of the legal and medical professions in the UK are frequently in private practice with high incomes, whereas nurses, physiotherapists and police constables are normally state employed on fixed salaries. In Australia, however, many physiotherapists are also in private practice (unlike England), which may account for differences in perception of physiotherapists’ income between the Australian public (Chung and Whitfield 1998) and the students in the present study.

The cross-country differences in the prestige standing of physiotherapy are interesting. In the UK, the intermediate position of physiotherapy that emerged in recent studies (Turner and Whitfield 1999, Whitfield et al 1996) is consistent with its classification as an intermediate “lesser profession” in the Registrar General’s social class classification of occupations (Sim 1985). In contrast, the results of both this present study and related studies (Chung and Whitfield 1998, Turner and Whitfield 1999) suggest that the status of physiotherapy in Australia has risen considerably since the 1980s. In a major study of prestige standing of occupations in Australia, Daniel (1983) reported physiotherapy as having intermediate standing, similar to nurse, occupational therapist and chiropractor, but above osteopath. Reasons for this change in status may lie firstly in the fact that in Australia, physiotherapy progressed fully to graduate status by the 1980s, with a subsequent increase in the perceived level of education; and secondly that unlike the UK and Korea, protection of professional title exists within Australia. The latter may well ensure that in Australia, physiotherapy is perceived as unique and distinct from other therapies such as osteopath, chiropractor and nurse.

With regard to the proportion of women in the profession, the Australian public saw physiotherapy as being neither male nor female dominated (Chung and Whitfield 1998, Turner and Whitfield 1999), whereas the results of this study indicate that physiotherapy students perceive their profession to be female dominated, although this was less so amongst male participants. Similar differences in perceived gender dominance emerged between public and student physiotherapists in England (Whitfield et al 1996). Female-dominated occupations tend to be perceived as having lower levels of power and prestige (Davies 1990, Fox and Suschnigg 1989, Sim 1985), and the perception of female-dominance that has emerged amongst future physiotherapists may account for the relatively low proportion of males entering the profession. According to Davies (1990), the reasons British males provided for not selecting physiotherapy as a prospective occupation were the profession’s lack of prestige, and its female nursing-associated image. In the Davies (1990) study, males formed only a sixth of the proportion of those in training, in contrast with the one-third in this present study. It is plausible that in Australia, males may be more attracted to the profession because of its high prestige rating (Turner and Whitfield 1999), and because they perceive it as less female dominated than do other nationalities (Chung and Whitfield 1998, Davies 1990).

Whilst no significant gender effects emerged in this study, the tendency for more consistent agreement amongst female opinions was noted also in related studies (Chung and Whitfield 1998, Turner and Whitfield 1999). However, for the dimension of level of usefulness, opinions were very divided in both genders, as indicated by the low values for Kendall’s W, suggesting that perceived usefulness of an occupation may be dependent on personal experience (Turner and Whitfield 1999). Some year effects emerged in the univariate analyses, and mainly indicated that with progress during the course, students’ perceptions of other occupations modified considerably. The changes in their perceptions of physiotherapy related mainly to level of income, but non-significantly also to the levels of usefulness and responsibility, where the ratings for physiotherapy decreased and those for other occupations, like nurse, increased.

The results of this present survey indicate the high regard
in which future physiotherapists in Australia hold their profession - a regard which it is plausible to assume is a reflection of its high perceived standing amongst qualified physiotherapists. The students’ perceptions of their profession remained high following clinical experience and contact with various professionals including physiotherapists, members of other occupations and the general public. Further, given that university student and public perceptions are similar (Daniel 1983), it is unlikely that Australian physiotherapy students’ perceptions differ much from their qualified public counterparts. It is therefore unlikely that Australian physiotherapists share the poor self-image and lack of clear identity reported amongst Canadian physiotherapists (Miles-Tapping et al 1993).

Conclusion

The results of this study suggest that physiotherapy in Australia occupies a position of high prestige standing both within the profession, and amongst the general public. This is in contrast to the profession’s perceived standing in England and other countries such as Korea and Canada. It is acknowledged that the results of this study are sample-specific, and cannot be widely generalised in Australia, but these results are nevertheless consistent with those of recent studies, and can be considered indicative of a likely trend. The high regard in which future physiotherapists hold their profession can only be considered very healthy for the profession’s future in Australia. In terms of further research, it would be informative to determine the standing of physiotherapy compared with the “alternative” therapies; and to establish how widely physiotherapy is differentiated from proximate occupations in terms of the services it provides. In this context, a study has recently been completed amongst non-physiotherapy university students in Australia.

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