A Cross-Sectional Exploration of the Personality Traits of Dietitians

Abstract

Background: Personality traits refer to habitual patterns of behaviour, thought and emotions, and have been shown to influence health professionals’ career decisions, career development, job satisfaction, and retention. There is an opportunity to better understand and support the career pathways of dietitians by exploring their personality traits. There are two primary aspects of personality: (i) temperament traits, which determine automatic emotional responses to experiences, and are generally stable over lifetime; and (ii) character traits, which reflect personal goals and values, and tend to develop with life experience.

Objective: To explore the levels of temperament and character traits of dietitians, and their relationship to demographic variables.

Design: Cross-sectional online survey.

Participants: 346 Australian dietitians (95% female; mean age 32±10 years; mean time since graduation 7±9 years).

Main outcome measures: Levels of temperament and character traits were measured by the Temperament and Character Inventory (TCI-R 140). Key demographic variables were measured to describe career decisions and pathways of dietitians.

Statistical Analyses: Multivariate Analyses of Variance investigated the relationship between demographic variables and personality traits.

Results: Levels of several traits were significantly associated with gender, age, and highest level of education. In comparison to the general population, the dietitians displayed average levels of Novelty Seeking; high levels of Harm Avoidance, Reward Dependence, Persistence, Self-directedness and Cooperativeness; and low levels of Self-transcendence.

Conclusions: The dietitians in this study displayed levels of personality traits that were similar to other health professionals, but differed to the general population. These findings are the
precursor to further work that may inform recruitment strategies and career counselling in dietetics.
A Cross-Sectional Exploration of the Personality Traits of Dietitians

Introduction

Personality traits have been shown to influence health professionals’ career decisions, job satisfaction, job retention and career development.\textsuperscript{1-3} Some health professions recognise personality traits as influential in professional practice.\textsuperscript{4, 5} For example, family doctors who exhibit high levels of persistence and self-directedness are more resilient to challenges within their workplace.\textsuperscript{6} Other studies investigating health professionals’ personality traits have found that person-oriented health professionals (such as social workers) are more sociable, empathetic and cooperative compared with technique-oriented health professionals (such as pharmacists).\textsuperscript{7} Understanding the personality traits of these health professionals has provided insight into their career pathways and work performance,\textsuperscript{8} and demonstrates opportunity for insights into other health professionals, including dietitians.

The dietetics profession has expanded and evolved in response to the increasing nutrition-related health care needs of populations.\textsuperscript{9, 10} The dietetic workforce has doubled in size over the past decade,\textsuperscript{11} despite relatively fixed employment opportunities in the traditional hospital sector.\textsuperscript{12} Consequently, dietitians are increasingly employed in diverse, ‘non-traditional’ areas of dietetic practice such as private practice, food industry and research.\textsuperscript{13, 14} There is currently limited understanding of factors determining the work performance and career pathways of dietitians.\textsuperscript{15} Exploring the personality traits of dietitians may further the understanding of dietitians’ career decisions, and help facilitate tailored training and career guidance that supports dietitians in their career pathways. Furthermore, understanding the personality traits of dietitians may identify the innate strengths and weaknesses of the dietetic profession, and inform broader strategies to support dietitians in their professional practice.

There are two primary aspects of personality: (i) temperament traits, which determine automatic emotional responses to experiences, and are generally stable over lifetime; and (ii)
character traits, which reflect personal goals and values, and tend to develop with life experience. The Temperament and Character Inventory (TCI-140) has been used to explore the personality traits of many health professions, and has been validated in multiple countries. Temperament traits reflect heritable bias, and include ‘Novelty Seeking’, observed as exploratory activity in response to novelty, impulsiveness and extravagance; ‘Harm Avoidance’, observed as pessimistic worry in anticipation of problems, fear of uncertainty, anxiety proneness; ‘Reward Dependence’, which indicates cues of social reward and is observed as sentimentality, social sensitivity, attachment and dependence on approval by others; and ‘Persistence’ which describes behaviour despite frustration, fatigue and reinforcement. It is observed as industriousness, determination and perfectionism. Character traits reflect personal goals and values and are subject to socio-cultural learning, and include ‘Self-Directedness’ which reflect qualities of being responsible, reliable, resourceful, goal-oriented and self-confident; ‘Cooperativeness’ which reflect qualities of being cooperative, tolerant, empathic and principled; and ‘Self-Transcendence’ which reflects self perception in relation to the universe as a whole and observed as spirituality, practicality, materialism and modesty. High and low descriptors of each trait are summarised in Table 1.

The aim of this exploratory study was to describe the temperament and character traits of dietitians, and explore the relationships between the demographic characteristics and temperament and character traits of dietitians. This research will add to the paucity of information on the personality traits of allied health professionals and will describe how an awareness of these attributes may be used to the benefit of the dietetics profession.
Methods

Overview
A cross-sectional design used an online survey to describe the temperament and character traits of dietitians, and explore relationships with dietitians’ demographic characteristics. The study was approved by the blinded for peer review Human Research Ethics Committee (PBH/32/13/HREC) and all participants provided informed consent.

Survey
The online survey (SurveyMonkeyPro®) comprised two sections; (i) demographic questions, and (ii) the Temperament and Character Inventory (TCI-R 140). Demographic questions were used to enable an investigation of the representativeness of the sample with the Australian dietetic workforce (through membership of the Dietitians Association of Australia) and to explore relationships with temperament and character traits. Demographic characteristics investigated were gender, age, years since dietetics graduation, highest academic qualification, Accredited Practising Dietitian (APD) status, rural background, and the number of hours worked each week. Personality was measured using the TCI-R 140, the 140 item self-report version using a five point Likert scale. The internal consistency (Cronbach alpha) of the dimensions ranged from 0.86-0.89 for character and from 0.71-0.91 for temperament scales. The online survey was piloted by five dietitians for feedback on face validity and appropriateness of demographic question wording; the TCI-R 140 was not modified. The final survey took approximately 30 minutes to complete and was available in English.

Participant Sampling
The potential participant pool were Australian dietitians who were members of Dietitian Connection in November 2013 (n=2418). Dietitian Connection is a free, online resource and
networking website designed to support dietitians by promoting dietetic services, events, resources, products, and employment opportunities. A description of the study and link to the online survey was included in the *Dietitian Connection* weekly electronic newsletter, and posted on the associated Facebook and Twitter pages in November 2013. A reminder was included in the newsletter and posted on the Facebook and Twitter pages four weeks after the initial invitation to participate. The survey was available for two months.

**Data Analysis**

Data analysis was conducted using SPSS statistical software (version 22.0, IBM Corporation, 2014). Descriptive statistics were calculated for each continuous and categorical variable. Representation of the survey sample was investigated using Chi-square Goodness of Fit analyses on gender, age, years since dietetic graduation, and dietetic status and the 2013 membership data from the Dietitians Association of Australia. Overall mean scores for each of the personality dimensions were ranked against published population normal ranges. The relationships between demographic characteristics and personality traits were investigated using a series of multivariate analyses of variance (MANOVAs) with Bonferroni Post-hoc correction to identify differences between groups. Bonferroni adjusted alpha levels were used to increase the sensitivity with multiple dependent variables, and were set at p<0.013 and p<0.017 respectively for the tests of individual dependent variables and grouped dependent variables.
Results

A total of 1077 dietitians opened an electronic newsletter that advertised the study; and 390 dietitians accessed the survey during the data collection period. Of the dietitians who accessed the survey, 346 subsequently completed the survey. This resulted in a response rate of 32%.

The demographic characteristics of all participants are presented in Table 2. Participants were aged 32±10 years (range 21 – 68) and graduated with their dietetics qualification 7±9 years ago (range 1 – 45). No significant differences were observed between the participants and the 2013 membership of the Dietitians Association of Australia with regards to gender. However, the participants completing the questionnaire were typically younger (p<0.001), with few years since graduation (p<0.001) and hence more likely to hold provisional APD status (p=0.002) when compared to the national dietetic membership.

The levels of temperament and character traits are presented in Table 3. Compared with published population norms, the sample displayed average levels of Novelty Seeking; high levels of Harm Avoidance, Reward Dependence, Persistence, Self-directedness and Cooperativeness; and low levels of Self-transcendence.

Participants’ mean scores for each temperament trait are displayed by demographic variable in Table 4. Gender, age, time since graduation, highest level of education, dietetic status and weekly working hours had significant effects on the overall temperament traits. The significant effects on individual dependent variables are detailed as follows. Females scored higher in
Reward Dependence than males. Younger dietitians scored higher in Harm Avoidance compared with older. Dietitians with an undergraduate degree scored higher Harm Avoidance than dietitians with a postgraduate qualification. Dietitians working more than 30 hours per week scored higher in Persistence than dietitians who were not currently working. No significant differences were found for participants’ temperament traits and their dietetic status, income, or rural background.

Participants’ mean scores for each character trait are displayed by demographic variable in Table 5. Gender, age, time since graduation, highest level of education, dietetic status and weekly working hours had significant effects on the overall character traits. The significant effects on separate dependent variables are detailed as follows. Younger dietitians, dietitians who graduated ≤2 years ago, dietitians with Provisional APD status, dietitians not currently working and dietitians without postgraduate qualifications scored lower in Self-Directedness than all other dietitians. Younger dietitians and dietitians not currently working scored lower in Cooperativeness than all other dietitians. No significant differences were found for participants’ character traits and their gender, income, or rural background.
The temperament and character traits displayed in this study have implications for the dietetic profession. The levels and combination of traits indicate that dietitians are conscientious, ambitious and reliable (high Self-directness, Persistence); tolerant and empathetic (high Cooperativeness and Reward Dependence); and tend to avoid risk-taking (high Harm Avoidance). These traits support dietitians to be competent and effective in their roles. However, the levels of some traits may not be optimal for dietitians in their roles. For example, high Harm Avoidance indicates a tendency toward being overly cautious or anxious, and high Persistence may incline them towards perfectionist attitudes at work. Individuals with a perfectionist disposition who may also experience anxiety are more likely to experience distress when a work situation is not in line with their high personal standards. This suggests that many dietitians may benefit from scenario-based training as students, whereby a variety of work situations are presented and in-depth debriefing occurs to guide students on possible strategies to manage challenging situations.

Some demographic characteristics were associated with participants’ temperament traits. Females displayed higher levels of Reward Dependence and Harm Avoidance than males, which is congruent with previous findings of nurses and doctors, and other allied health professionals. High levels of Harm Avoidance in dietitians suggests they are cautious in their decision making processes which is important to maintaining high professional standards and appropriate patient care. High levels of Reward Dependence and Cooperativeness may facilitate client and team relationships, which are central to many dietetic roles. However, high levels of Reward Dependence and Harm Avoidance may also result in workers who are dependent on approval from others and are unable to manage uncertainty. This highlights
some challenges associated with assessing personality traits, as these traits may manifest in
different behaviours for different individuals and within different contexts.

Dietitians working up to 30 hours per week displayed higher levels of Persistence than
dietitians who weren’t currently working. Individuals with high Persistence are generally
ambitious, hard-working and resilient in challenging situations,\textsuperscript{16} which may explain the
increased likelihood of working. As temperament traits are considered stable; understanding
the temperament traits of students and dietitians may assist to identify individuals who may
benefit from additional support to obtain employment. However, this study did not investigate
whether some dietitians chose not to work (e.g. for family caring responsibilities), and warrants
further research in this area.

Many demographic characteristics were associated with participants’ character traits.
Interestingly, these associations reflected a difference in life and career experience. For
example, dietitians who were older; had more time since graduation; a full APD status, and a
postgraduate degree were higher in levels of Self-directedness and Cooperativeness than
younger dietitians. This suggests they may be more reliable, tolerant and agreeable, and
supports the notion that character traits tend to develop with life experience.\textsuperscript{16} The implications
of these associations regarding the effectiveness of more experienced dietitians require
consideration through further research. Dietetic managers are encouraged to be mindful of
these associations when making employment decisions and work allocations, as some
environments may require specific attributes of dietitians in order to perform optimally.

To the authors’ knowledge, this study is the first to investigate the personality traits of
dietitians. The results have provided insight into the dietetics profession, and have identified
opportunities for tailored training based on dietitians’ personality traits and demographic
characteristics. Given that dietitians are increasingly employed in diverse, ‘non-traditional’
areas of dietetic practice, innate differences in personality may contribute to dietitians
working in different areas of practice such as private practice, clinical, food industry and
research. Investigation of the personality traits of dietitians working in these areas of dietetic
practice may further inform career guidance that supports dietitians in their career pathways.

The results of this study are not intended to describe the “ideal” personality profile of
dietitians, rather to suggest possible benefits of greater understanding of personality traits
within the profession. The implications of using personality traits as a predictor of success
requires consideration, as attracting individuals with different personality traits may assist in
the enrichment and diversification of the skill set within dietetics. There are opportunities for
further research in this area, including investigating the influence of academic educators’
personality profiles on the education and development of dietetic competencies and traits in
students. Furthermore, given the diversification of areas of dietetic practice, research is
warranted as to whether dietitians’ temperament and character traits are associated with the
areas of dietetic practice in which they work. The study population comprised an
overrepresentation of younger, new-graduate dietitians relative to those within the national
dietetic association, possibly as a result of the recruitment strategy. Whilst this outcome
indicates a sample bias, understanding the personality traits of those in the early stages of their
dietetics career ensures that the present conclusions provide a contemporary perspective on the
personal attributes likely to pervade the future of the profession.

In conclusion, this study described the temperament and character traits in a sample of
dietitians, differed in several traits compared to population norms but were similar to the trait
profiles found in other health professionals. Investigating dietitians’ personality profiles may
be useful for identifying areas of training opportunities and tailored guidance to support dietitians in their career opportunities but also highlights areas where additional support may be required.
References


