ARE THERE DIFFERENCES BETWEEN MANAGEMENT AND PHYSIOTHERAPY STUDENTS IN VOCATIONAL INTEREST WITH REGARD TO GENDER?

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Abstract

The aim of this study is to reveal the differences between Management and Physiotherapy students with regard to gender. It was expected that women will score higher in pro-social and methodical interests and men in technical. Due to specific work environment, it was expected that students of Physiotherapy will be more pro-social and will score lower in leadership type compared to students of Management. The study encompassed 393 students of Management (n = 128) and Physiotherapy (n = 265), including 221 women (56%) and 172 men (44%). The study was conducted by means of The Vocational Potential Inventory by Ochnik, Stala, & Rosmus (2016) featuring five types of vocational preferences: Pro-social, Leadership, Creative, Technical, and Methodical. The results of two-way ANOVA showed significant although small effect in leadership vocational interests, with students of Management scoring higher in this type of interests. The pro-social, creative, technical and methodical types were no differ due to the field of study. The significant gender effect was found in pro-social, leadership, technical and methodical types of vocational interests. Women scored higher in pro-social type but men in leadership, technical and methodical vocational interests. The results only partly confirmed hypotheses. The study revealed that students of Physiotherapy are no more pro-social than students of Management but students of Management have stronger leadership vocational interests.

Keywords: vocational interests, field of study, gender differences, Management, Physiotherapy.

1 INTRODUCTION

The intensity of the vocational interests may be determined by a broad spectrum of cultural factors, such as culture’s gender dimension or social expectations realized in particular social gender roles performed by women and men of various ages (Ochnik, 2017[1], 2018[2]). Even though vocational identity is dynamically shaped throughout a person’s lifetime, vocational interests are unstable and dependent on the adaptation to changing conditions (Super, Savickas, & Super, 1996 [3]). Therefore people in particular work environment might present similar vocational interests (Holland, 1997 [4]), as well as student of particular field of study. The person-environment fit in aspect of vocational interests is related to academic environment, and the choice of the field of study plays important part in vocational counseling (Nauta, 2010 [5]). Students’ choice of major of study might be predicted on vocational interests’ type (Burnst, 2014 [6]; Tracy & Robbins, 2006 [7]). Also types of students’ vocational interests are highly correlated with study programs (Schellhout et al., 2019 [8]).

Even though fairly small, research reveal gender differences in vocational interests, when using Holland’s RIASEC model. Women in general score higher in social type, and men score higher on scale of realistic type (Foud, 2002 [9]; Tracey & Robbins, 2005 [10]). Also men prefer the investigative types, and women pursue the conventional, artistic types (Su, Rounds, & Armstrong, 2009 [11]). Additionally previous research in Contextual Model of Vocational Interest (N = 8 125) showed stronger pro-social, technical and methodical vocational interests in women, and leadership in men in young adult (Ochnik & Rosmus, 2016 [12]).

Considering the fit between the person and work environment characteristic, it is hypnotized, that vocational interests of students in the field of Management and Physiotherapy with regard to gender, may differ. It was expected that female students will score higher in pro-social and methodical interests and male students in technical. Due to specific work environment, it was expected that students of Physiotherapy will be more pro-social and will score lower in leadership type compared to students of Management.
2 METHODOLOGY

The study was conducted by means of an original tool - The Vocational Potential Inventory by Ochnik, Stala, & Rosmus (2016) [13] featuring five types of vocational preferences: Pro-social, Leadership, Creative, Technical, and Methodical. Participants scored their skills on a 4-point scale, and traits on a 5-point scale. In total, the tool is comprised of 100 statements, 50 of these in the first section encompassing self-assessment of skills, and further 50 pertaining to traits in the second section. All scales scored a satisfactory Cronbach’s α: Pro-social - 0.703; Leadership - 0.75; Creative - 0.79; Technical - 0.75; Methodical - 0.74 respectively (Ochnik & Rosmus, 2016 [12]). The measurement turned out to be highly theoretically reliable with regard to personality traits and Holland’s model of vocational interests (Ochnik, 2017 [1], 2018 [2]; Ochnik, Stala, & Rosmus, 2018 [13]; Ochnik & Rosmus, 2016 [12]). A paper-and-pencil method was carried out in the study. Purposive sampling was used. Principles of voluntariness and anonymity were respected during the study.

The study encompassed 393 students of Management (n = 128) and Physiotherapy (n = 265), including 221 women (56%) and 172 men (44%).

Table 1. Descriptive statistics of vocational interests types (pro-social, leadership, creative, technical, and methodical) in students of Physiotherapy and Management with regard to gender.

<table>
<thead>
<tr>
<th>Gender</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>Sten</th>
<th>M</th>
<th>SD</th>
<th>Sten</th>
<th>M</th>
<th>SD</th>
<th>Sten</th>
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<td></td>
</tr>
<tr>
<td>Men</td>
<td>121</td>
<td>69.83</td>
<td>9.05</td>
<td>7</td>
<td>64.74</td>
<td>10.19</td>
<td>5</td>
<td>33.23</td>
<td>8.77</td>
<td>5</td>
<td>61.09</td>
<td>8.01</td>
<td>4</td>
</tr>
<tr>
<td>Women</td>
<td>144</td>
<td>73.31</td>
<td>8.31</td>
<td>8</td>
<td>61.18</td>
<td>9.56</td>
<td>4</td>
<td>33.41</td>
<td>9.77</td>
<td>5</td>
<td>58.01</td>
<td>8.11</td>
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<tr>
<td>Total</td>
<td>265</td>
<td>71.72</td>
<td>8.81</td>
<td>7</td>
<td>62.82</td>
<td>9.99</td>
<td>5</td>
<td>33.33</td>
<td>9.31</td>
<td>5</td>
<td>59.42</td>
<td>8.20</td>
<td>4</td>
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<tr>
<td>Men</td>
<td>51</td>
<td>69.78</td>
<td>8.69</td>
<td>7</td>
<td>68.45</td>
<td>8.05</td>
<td>6</td>
<td>35.47</td>
<td>9.51</td>
<td>5</td>
<td>60.67</td>
<td>7.74</td>
<td>4</td>
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<tr>
<td>Women</td>
<td>77</td>
<td>72.21</td>
<td>8.87</td>
<td>8</td>
<td>64.04</td>
<td>8.15</td>
<td>5</td>
<td>33.31</td>
<td>9.76</td>
<td>5</td>
<td>56.78</td>
<td>7.50</td>
<td>3</td>
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<tr>
<td>Total</td>
<td>128</td>
<td>71.24</td>
<td>8.85</td>
<td>7</td>
<td>65.80</td>
<td>8.36</td>
<td>5</td>
<td>34.17</td>
<td>9.68</td>
<td>5</td>
<td>58.33</td>
<td>7.80</td>
<td>4</td>
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<tr>
<td>Total</td>
<td>172</td>
<td>69.81</td>
<td>8.92</td>
<td>7</td>
<td>65.84</td>
<td>9.73</td>
<td>5</td>
<td>33.85</td>
<td>9.03</td>
<td>5</td>
<td>60.96</td>
<td>7.91</td>
<td>4</td>
</tr>
<tr>
<td>Women</td>
<td>221</td>
<td>72.92</td>
<td>8.50</td>
<td>8</td>
<td>62.18</td>
<td>9.17</td>
<td>5</td>
<td>33.38</td>
<td>9.74</td>
<td>5</td>
<td>57.58</td>
<td>7.91</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>393</td>
<td>71.56</td>
<td>8.81</td>
<td>7</td>
<td>63.79</td>
<td>9.59</td>
<td>5</td>
<td>33.60</td>
<td>9.43</td>
<td>5</td>
<td>59.06</td>
<td>8.08</td>
<td>4</td>
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</table>

Note. aPhysiotherapy, bManagement

3 RESULTS

The SPSS 25 software was applied for the purpose of statistical analysis. Variables conformed with fundamental premises of parametric tests regarding normal distribution and homogeneity of variance.

In order to analyze the main effects of gender, field of study, and gender x field of study interaction for the pro-social, leadership, creative, technical, and methodical type of vocational interests a two-way ANOVA was carried out.

3.1 Pro-social type

Gender effect is statistically significant as shown by a two-way ANOVA, $F(1,392) = 9.63$, $\eta^2 = .024$, $p = .002$. The strength of this effect can be described as weak. Female students rated their pro-social interests higher than male students. The field of study effect as well as the gender x field of study interaction turned out to be insignificant ($p > .05$). (Fig. 1)
3.2 Leadership type

Gender effect is statistically significant as shown by a two-way ANOVA, $F(1,392) = 15.30$, $\eta^2 = .038$, $p < .001$. The strength of this effect is weak. Male students rated their leadership interests higher than female students. A two-way ANOVA showed that field of study effect turned out to significant but weak, $F(1,392) = 10.37$, $\eta^2 = .026$, $p = .001$. Management students scored leadership interests higher compared to Physiotherapy students. The gender x field of study interaction for leadership type of vocational interests turned out to be insignificant ($p > .05$). (Fig.2)

3.3 Creative type

A two-way ANOVA showed that gender effect, field of study effect as well as the gender x field of study interaction for creative type of vocational interests turned out to be insignificant ($p > .05$).

3.4 Technical type

Gender effect is statistically significant although weak, as shown by a two-way ANOVA, $F(1,222) = 16.22$, $\eta^2 = .040$, $p < .001$. Male students rated their technical interests higher than female students. The field of study effect as well as the gender x nationality interaction turned out to be insignificant ($p > .05$). (Fig.3)
3.4.1 Methodical type

Gender effect turned out to be statistically significant, as shown by a two-way ANOVA, $F(1,392) = 3.98$, $\eta^2 = .010$, $p = .047$. The strength of this effect is weak. Male students rated their methodical interests higher than female students. A two-way ANOVA showed that field of study effect, as well as the gender x field of study interaction effect for methodical type of vocational interests turned out to be insignificant ($p > .05$).

4 CONCLUSIONS

The results showed significant although small difference in leadership vocational interests, with students of Management scoring higher in this type of interests. The pro-social, creative, technical and methodical types were no different due to the field of study. The significant gender effect was found in pro-social, leadership, technical and methodical types of vocational interests. Women scored higher in pro-social type but men in leadership, technical and methodical vocational interests. The results only partly confirmed hypotheses.

The study revealed that students of Physiotherapy are no more pro-social than students of Management but students of Management have stronger leadership vocational interests. Therefore, students of Management and Physiotherapy scored equally highly in pro-social vocational interests, and described themselves in pro-social categories associated with helping others, mitigating conflicts or caring for others. Female students scored higher in this type of interests, what is in accordance with other research (Ochnik & Rosmus, 2016 [12]; Su, Rounds, & Armstrong, 2009 [11]).

Male students in general and Management students scored higher leadership vocational interests. This means that male students and Management students perceive their skills in giving commands,
influencing others, decision-making higher than female students and students of Physiotherapy. Their self-assessment regarding being ambitious, energetic and decisive is also higher.

The research revealed that male students scored higher in methodical type. Male students evaluated their skills in data collection and analysis, working with the same speed or calculating, higher than female students. They also described themselves as systematic, meticulous and conformist more frequently. It is noteworthy that in the research within 8 125 people, women score higher in methodical type of vocational interests compared to men (Ochnik & Rosmus, 2016 [12]). On the other hand, American research based on John Holland’s model referring to Conventional type - that is comparable to methodical type, showed that Men scored significantly higher (Morris, 2016 [14]). Nevertheless, other research reveal higher scores in women compared to men (Woods & Hampson [15], 2010; Su, Rounds, & Armstrong, 2009 [11]). Therefore, male students of Management and Physiotherapy are more methodical compared to female students, unlike the results in Polish population(Ochnik & Rosmus, 2016 [12]).

Gender differences in vocational interests turned out to be more pronounced than the field of study. It may be attributable to relative instability of vocational interests that may be stronger in later life due to specific requirements of work environment.

REFERENCES