Transference and Counter Transference between Students and Professors: The Role of Gender or Motherhood in this Psychodynamic Phenomenon

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Abstract

Academic setting could generate transference and counter transference between students and professors. An academic environment is also a group or individual psychotherapy setting, and the role of motherhood or gender in this psychodynamic phenomenon between therapists or Professors and patients or students remains uncertain. We applied a Teaching Performance Evaluation Questionnaire to 105 female and 41 male students; it was analyzed together to their regular medical physiology course grades. We found that students of any gender evaluated professor independent to grades. The teaching performance scores depend on motherhood and gender, the female students evaluated better the only professor that is mother, than male students. Male student obtained better scores in neurophysiology and biophysics modules than female student. These results strongly suggest that transference and counter transference processes do exist between university students and their professors, where gender and motherhood play relevant roles.

INTRODUCTION

Academic setting could generate transference and counter transference between students and professors [1]. An academic environment is also a group or individual psychotherapy setting, however interpretation and compression on psychodynamic transfer phenomenon between students and professors, its potential use to improve learning and the role of motherhood and gender remains unknown. A better understanding about this phenomenon could improve psychotherapeutic treatment in patients, and students and professors performance as well. Professor performance evaluation and students grade should be investigated to know if could give us a method to evaluate transfer and counter transference generated in an academic environment. This kind of evaluation is a method used by job performance in academic, business, finance or politics, as a feedback mechanism to evaluate efficiency and effectiveness in workplace. It is the process of obtaining, analyzing, and recording information about the relative worth of an employee into an organization. Performance evaluation analyzes an employee’s recent successes and failures, personal strengths and weaknesses, and suitability for promotion or further training. It is also the judgments of an employee’s performance in a job based on considerations other than productivity alone. Applied to the learning process, the purpose of the evaluation of teaching performance is to develop a feedback program to increase the effectiveness, quality and reciprocity in the teaching-learning process [2], aimed to encourage reflection and stimulate a review of the teaching practice, to generate a feedback in which these take into account the assessment of students about their performance and to correct the deficiencies observed, as well as enhance self-criticism, change behaviour in their occupational activities, to promote a culture of educational significance that introduce in a progressive form an educational restructuring to guarantee a feasible education [3]. Role of gender and/or motherhood in the psychodynamic phenomenon of transference and counter transference could be developing through unconscious biases
and assumptions about the traits and behaviors of men and women. These implicit biases derived from prescriptive gender norms are easily activated and applied in decision-making settings [4]. Unconscious assumptions about gender as a social category are tenacious and even prevail in the face of objective evidence to the contrary [5,6]. Some reviews on the impact of patient gender in psychotherapy indicate that men and women respond similarly across different types of psychotherapy [7-9]. Others studies have reported a moderate effect of gender in individual psychotherapy [10-12]. The aim of the present study is evaluate transference and counter transference between students and professors and the role of motherhood or gender in professor performance evaluation.

MATERIALS AND METHODS

We obtained reliable data from 358 female and 152 male students, with an age range from 18 to 20 years old, attending the Physiology and Biophysics course over the academic period 2010 at the School of Medicine, University of Carabobo. This Course has a 9 module schedule, i.e. Cardiovascular (Car), Respiratory (Res), Renal (Ren), Hematology (Hem), Gastrointestinal (Dig), Neurophysiology (Neu), Endocrine (End), Immunology (Imm), Biophysics (Bif), of 3 weeks each. A specialist professor was assessed to every module of the course including 6 women and 3 men, only 1 female teacher is mother, mostly full-time or part-time professors. We used an anonymous Teaching performance evaluation questionnaire (TPEQ) a Licker scale questionnaire answered by the students, regularly applied to evaluate the Course and their professors. It consists of 9 items where the student indicates its gender and ranks their module teacher using an “X” on a scale from 0 (deficient) to 10 (excellent in). Additionally, students could freely express their opinions about their teacher’s module and suggestions. The application of the questionnaires was conducted by their module professors randomly distributed after the end of the course. There was no control of time to complete the questionnaire. The aim is to analyze if there is a difference between how male and female students evaluate each professor, if they identified with their gender or the opposite gender. The following basic variables were considered: Professor Performance score given by female and male students [13]; Physiology module grades obtained by male and female students [14]; Professor and Student gender [15,16]. Final course grades of the students were also included and evaluated.

Statistics

A Mann-Whitney U test was used for calculating differences between male and female students and professor values. Pearson Correlation was applied to evaluate association between variables. Values of P<0.05 were considered statistically significant.

RESULTS

Data was obtained from 105 female and 41 male medical students by questionnaires that were completed at the end of the Physiology and Biophysics course of 2010 at Medical School of the Carabobo University. Performance scores given to professors by students of every gender are presented in Table (1). The comparison (Mann-Whitney U-test) between student gender shows that female students evaluated significant better the female professor (Biophysics) than male students, despite that females students obtained significantly lesser grades than males Table (2). Rest of the professor modules did not show significant differences by gender. The average age of teachers is 37.6, no statistical differences in the age of teachers were found. No significant difference was found between female or male students for Course final grades, however when compared gender grades for each module Table (2), male students show significant better grades in Neurophysiology and Biophysics modules, even when female students scores better the Biophysics professor. Figure (1) shows the scatter plot between grades obtained by the students of any gender and the scores given by them to professors. Correlation analysis did not find any significant association between these two variables. Scores given to female and male professors by female students Figure (2) were statistically associated about 8.4%, but the professor performance scores given by male students were not statistically associated Figure (3).

DISCUSSION

To our knowledge, this is the first study has investigated transference and counter transference between students and professors and the role of motherhood or gender in professor performance evaluation in medicine learning. Our results show a significant statistical difference in performance evaluation between male and female a student to a female professor (which teaches Biophysics and is the only mother of all 6 female professors). Male students obtained better scores than those female students in two modules. The lack of association between student grades and professor scoring strongly suggests that students do not use revenge, retaliation or gratification feelings for professor performance scoring. The correlation analysis shows that scores given to female and male professors by female students were proportionally associated in only 8.41%, e.g., same score given independently to professor gender; rest of the professors scoring depends on their gender. On the other hand, no association was found between scores given to female and male professors by male students, i.e., male students do not scores equally female or male professors. A limitation of our study is that we ask about sex and not gender or sexual identity. The term sex is related to anatomical structure, the term gender

\[
\begin{array}{|c|c|c|}
\hline
\text{Module} & \text{Female} & \text{Male} \\
\hline
\text{Car} & 7.42 & 7.40 \\
\text{Res} & 1.12 & 1.53 \\
\text{Ren} & 8.02 & 8.24 \\
\text{Hem} & 9.39 & 9.57 \\
\text{Dig} & 7.17 & 7.38 \\
\text{Neu} & 8.44 & 8.81 \\
\text{End} & 7.54 & 7.30 \\
\text{Imm} & 8.07 & 7.78 \\
\text{Bif} & 7.35 & 6.77 \\
\hline
\end{array}
\]

Table 1: Performance scores of professors given by males or females students.
Table 2: Female or male student grades in every physiology module. Significant gender differences at p<0.05 are underlined.

<table>
<thead>
<tr>
<th></th>
<th>Female</th>
<th>Male</th>
<th>U</th>
<th>Z</th>
<th>p-level</th>
<th>Nf</th>
<th>Nm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ren</td>
<td>15,21</td>
<td>14,80</td>
<td>25935,50</td>
<td>0,593</td>
<td>0,552</td>
<td>353</td>
<td>152</td>
</tr>
<tr>
<td>Res</td>
<td>11,31</td>
<td>11,96</td>
<td>24865,00</td>
<td>-1,603</td>
<td>0,108</td>
<td>357</td>
<td>153</td>
</tr>
<tr>
<td>Car</td>
<td>15,72</td>
<td>15,72</td>
<td>24226,50</td>
<td>-0,480</td>
<td>0,631</td>
<td>346</td>
<td>144</td>
</tr>
<tr>
<td>Hem</td>
<td>10,48</td>
<td>11,23</td>
<td>24498,00</td>
<td>-1,419</td>
<td>0,155</td>
<td>355</td>
<td>150</td>
</tr>
<tr>
<td>Neu</td>
<td>13,02</td>
<td>14,00</td>
<td>21418,00</td>
<td>-3,033</td>
<td>0,002</td>
<td>352</td>
<td>147</td>
</tr>
<tr>
<td>Dig</td>
<td>14,83</td>
<td>14,28</td>
<td>25396,50</td>
<td>0,377</td>
<td>0,705</td>
<td>346</td>
<td>150</td>
</tr>
<tr>
<td>End</td>
<td>13,98</td>
<td>14,65</td>
<td>23346,00</td>
<td>-1,440</td>
<td>0,149</td>
<td>346</td>
<td>147</td>
</tr>
<tr>
<td>Inm</td>
<td>13,13</td>
<td>13,05</td>
<td>22552,00</td>
<td>-1,292</td>
<td>0,196</td>
<td>336</td>
<td>145</td>
</tr>
<tr>
<td>Bif</td>
<td>10,58</td>
<td>11,48</td>
<td>21824,00</td>
<td>-2,625</td>
<td>0,008</td>
<td>349</td>
<td>147</td>
</tr>
</tbody>
</table>

Figure 1 Scatter plot between median grades obtained in every physiology module by the students and the scores given by them to professors. Correlation analysis doesn’t show any association (r=0.24; F=1.0; P=0.33).

Figure 2 Scatter plot between scores given to female or male professors by female students. Correlation analysis shows a significant association between both scores (r=0.29; r²=0.0841; F=8.63; P=0.004).

Figure 3 Scatter plot between scores given to female or male professors by male students. Correlation analysis doesn’t show any significant association between both scores (r=-0.09; P=0.59).

is related to an imposed or adopted social and psychological condition [17]. In our Spanish language there are two different definitions of sex and gender, however, culture generally do not know differences between two definitions. Our results show not significant difference between female or male students in subject final scores, however a statistical difference was show in performance evaluation between male and female students to Biophysics female professor. In this case the female students evaluate better a female professor than male students. The Professor is married, mother of 2 girls, in the fourth decade of life. We could interpret this evaluation difference because female professor generates transfer in female students who identify with her mother and therefore was evaluated better, to make a consciously compensation over unconscious feeling of hate that they have against their mothers. The other interesting thing is the same Biophysics module female students obtained worse scores that male students, she performs multiple choice exams, removing subjectivity. The male students could have a psychodynamic mobilization and developed a transfer to female professor who was the only mother and thereby work more to get better scores. Gender-dependent difference between male
and female students could be explain as Ogden said, the concept of the oedipal transitional relationship is proposed as a way of understanding the nature of the psychological-interpersonal process mediating the little girl’s entry into the Oedipus complex. This transitional relationship serves to allow the little girl to discover non-traumatically the father as external object in the context of the safety of the dyadic relationship to the mother. In this early phase of oedipal development, the little girl falls in love with the mother-as-father and the father-as-mother, i.e. the mother in her unconscious identification with her own father. In this way, paradoxically, the first triangulated object relationship is experienced in a two-person relationship; the first heterosexual relationship develops in a relationship involving two females; the father as libidinal object is discovered in the mother [18], also gender influences psychoanalytic and psychotherapy in a variety of ways. Choice of therapist is influenced by realistic, transferential, and stereotyped ideas such as, wishes for a role model, unconscious fantasies for a better mother, and ideas that women are more nurture. Transference and counter transference manifestations concern variations in erotic and eroticized transference, maternal and paternal transference, and paternal erotic counter transference. Some limitations of cross gender treatment are indicated [19]. By making some unconscious fantasies and interpretations more salient than others, each woman creates her own prevalent animation of gender [20], Jung proposed on gender differences and used the terms ‘anima’ and ‘animus’ to classify observed phenomena but did not explore the developmental origins of these phenomena in terms of personal history and experience. Some typical manifestations of anima and animus are described and shown to be rooted in the vicissitudes of oedipal development. The contra sexual archetype is initially mediated by the oedipally loved parent and subsequent manifestations bear the imprint not only of the parent himself or herself but of the entire complex of object relationships in which Oedipal love are embedded. Successful resolution of the Oedipus complex depends on freeing the anima/animus from its oedipal bonds so that its function as a bridge to the unconscious can be realized. This function is connected with the emergence of a symbolic capacity through which anima and animus can be recognized and valued as imagine rather than external realities. Another possible explanation of our results in terms of gender-dependent transference and counter transference process between students and professors could be the theories of semiotic processes, including Jacques Lacan’s concept of the psychoanalytic signifier, which are explained briefly and applied to the signs of gender and concludes that gender concepts develop out of biology, unconscious feelings, and social patterning, and are not given, natural, and irrevocable [21]. Another theory that could explain gender differences is proposed by Celenza and she said that vignettes from an ongoing psychoanalysis with a patient, are presented to illustrate the various dimensions of the erotic transference at different phases of the treatment. The relation of power, the experience and expression of aggression, how these may be organized by gender, and the female analyst’s counter transference are discussed as potentially fostering or inhibitory in the development of an erotic transference. Traditional socio cultural gender stereotypes kept alive in fantasy can cause female analysts to subtly foreclose the impending threat of an intense erotic transference with male analyst due to a fear of outwardly directed male aggression. It is suggested that the maternal/containing transference can be unconscious fostered by both analyst and analyzed to defensively avoid expression of the aggressiveness erotic transference in its full intensity [22]. However remembrance of events in early childhood as the Oedipus complex in transference and counter transference experienced in psychotherapy between patient and therapist is by definition gender or motherhood independent and Sigmund Freud, Jacques Lacan or Carl Jung theories cannot explain our results. With only 1 female teacher in the sample it is difficult to show a strong statistical significance however, there were six female professors and interestingly the only one that showed significant statistically difference in performance evaluation was the mother one, therefore we decided to call it “The Demeter Complex”, and its complex show that female students evaluated better in performance evaluation to female professors who are mothers. In Greek mythology the goddess Demeter was the most generous of the great Olympian goddesses. The Greek goddess Demeter was beloved for her service to mankind in giving them the gift of the harvest, the reward for cultivation of the soil. Also known as the Roman goddess Ceres, Demeter was the goddess of the harvest and was credited with teaching humans how to grow, preserve, and prepare grain. The goddess Demeter is best known for her fierce defense of her daughter, Persephone, who was also known as the child, Kore (or Cora). Neurophysiology was the other module that female student obtained worse scores that male student. He is single at the early age of 30, without children, he performs true and false exams, eliminated subjectivity. The male students could have a psychodynamic mobilization and develop a transfer to male professor, and they felt identified with the figure of the professor and therefore worked to get better scores in that module that female student. Other explanation could by oedipal issues, rivalry toward his father influence consciously or unconsciously on this professor and dynamics of teaching is presented more efficiently in male than in female students as a compensatory mechanism for rivals feelings to his father. Josephs said that fatherhood may unconsciously activate repudiated identifications with patriarchal primal fathers in men with progressive social values. These men may consciously cultivate an image of themselves as rebellious nonconformists. These men may wish to raise children who are fiercely independent just like them. Yet when these rambunctious children challenge paternal authority, these men may become enraged because their unconscious identification with the primal father has been threatened. They tend to unconsciously re-create and enact their conflicted and enraging relationship with the primal father in their relationship with the therapist [23] or in our case between male students and professors. The other interesting result is that both female and male students evaluated female and male professors independent of score obtained in the module, it shows that students do not value professors better if they get better scores, or value worse if they get worse scores. Students values “transfer of knowledge more than score given by the professor” as they said in interviews. Several questions remain unanswered: 1) what determines transference and counter transference in the relationship of students or patients and professors or therapists? 2) There is motherhood or gender dependent subjective performance evaluations in work, political, academic, family, and
religious or sports? 3) Could we use that transference and counter transference for better psychotherapeutic treatment or academia? Future research is needed to answer these unknowns.

CONFLICTS OF INTEREST

The professor of Neurophysiology is one of the authors and 4 of the authors are medical students in the study group.

Bullet Points

1) The students of any gender evaluated Proefsors independent to grades. 2) The teaching performance scores depends on motherhood and gender, 3) the female students evaluated better the only professor that is mother, than male students. 5) Male student obtained better scores in neurophysiology and biophysics modules than female student.

6) Transference and counter transference processes do exist between university students and their professors. 7) Gender and motherhood play a relevant role in transference and counter transference processes between university students and their professors.

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REFERENCES


