

## Research Articles

**Does Depressive Symptomatology Influence Teenage Patients and Their Mothers' Experience of Doctor-Patient Relationship in Two Balkan Countries?**Vaitsa Giannouli\*<sup>a</sup>, Stanislava Stoyanova<sup>b</sup>**[a]** Aristotle University of Thessaloniki, Thessaloniki, Greece. **[b]** South-West University "Neofit Rilski", Blagoevgrad, Bulgaria.**Abstract**

Doctor-patient relationship is considered to be a special relationship and a keystone of medical care. A fundamental factor in this sort of relationship is the communication, which is strictly examined between the two involving parts, without taking into consideration in the case of children and teenagers the possible influence of their parents. The mothers more often accompany their children to the doctor and they become a third part of the doctor-patient relationship. In Greece during February-May 2013, 196 mothers and their teenage children (suffering from acute or chronic illnesses) completed two questionnaires: the Center for Epidemiological Studies-Depression Scale (CES-D) and a series of questions on a Likert scale from the Patient Satisfaction Questionnaire (PSQ) about the experienced satisfaction with the characteristics of this communication. In Bulgaria during July-August 2013, 60 mothers and their children completed the same questionnaires. The results revealed an unexpected finding only for the Greek sample - the quality of relationship between doctor and patient (for both Greek mothers and adolescents) was negatively associated with their scores on CES-D (i.e. low level of depression together with low satisfaction derived from the relationship with the doctor), while no differences were found between the participants' groups (mothers, children, acute or chronic disease). This surprising finding of high depression-high satisfaction was not found in the Bulgarian sample and therefore needs further investigation.

**Keywords:** doctor-patient relationship, communication, teenagers, mothers, depression

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**Introduction**

Doctor-patient relationship is of great importance in the field of health psychology. The last decades several studies have provided data on the complexity and uniqueness of this kind of relationship (Balint, 1957), while a body of several theories have tried to explain it (Freidson, 1970; Parsons, 1951; West, 1976). This relationship is 'the medium in which data are gathered, diagnoses and plans are made, compliance is accomplished, and healing, patient activation, and support are provided' (Goold & Lipkin, 1999; Lipkin, Putnam, & Lazare, 1995). As far as the doctor is concerned, patients' perceptions of this category of health professionals seem to be influenced by the ability and willingness of the physicians to establish rapport with them and doctors' ability to develop an effective doctor-patient communication (DiMatteo & Hays, 1980). The ability to develop a successful doctor-patient communication is not only due to personal characteristics, but also may relate to professional attitudes, possible social

class communication barriers and problems of uncertainty in diagnosis, prognosis and therapy in a wide range of contemporary diseases.

The main goals of current doctor-patient communication are creating a good interpersonal relationship, facilitating exchange of information, and including patients in decision making (Ha & Longnecker, 2010, p. 2).

In the paternalistic model of doctor-patient communication, the physician (as a guardian) presents the patient with selected information. In deliberative or consumer model, the physician (as a friend or a teacher) provides the patient with all relevant information. In informative model, the physician (as an expert) provides all the available facts and considers the patient's values for determining the treatments to be given. In the interpretive model, the physician is an adviser who informs the patient and the latter selects the intervention (Emanuel & Emanuel, 1992).

In Bulgaria, the paternalistic model of doctor-patient communication is very common. The doctor manifests his/her high social and educational status, s/he takes decisions and risks regarding patient's health that are not discussed with the patient, s/he does not inform the patient about some alternative possibilities for therapy, s/he does not discuss the diagnosis and treatment, etc. (Eftimova, 2007). Some authors in other countries consider the paternalistic model of the doctor-patient relationship (patients play a fairly passive role and doctors made decisions for their patients) as the typical mode of medical practice for the period about thirty years ago. Now, this model seems to be replaced by a patients' rights consumerist model – the medical practice is seen as a service-oriented business with patients as consumers who will just take their business elsewhere if they are not satisfied. Another possibility is a collaborative model, which is grounded in mutual respect and trust between patients and doctors. Here, both participants are experts: doctors are medical experts and patients are personal experts. Doctors know about diseases and treatments, but patients know about themselves (Greenfield, 2001a). But this shared decision making is severely criticized, because doctors are experts whose knowledge and skills far outweighs that of people who seek their services, so it makes no sense to seek the advice of a professional and then not take it (Greenfield, 2001b).

The efficacy of the doctor-patient relationship often is estimated by means of patient satisfaction (Ha & Longnecker, 2010, p. 9). In a limited way, current research focuses only on two parts (doctor and patient). Contrary to this general view, in the case of children and teenagers, there is also a third party, their parents and especially their mothers. Especially among mothers of chronically ill children there is an increased psychological morbidity, which takes the form of depression or anxiety (Eiser, 1997).

In Greek society mothers have a close relationship (longer and more frequent involvement) with their children (regardless of age) and demonstrate a fairly high level of intervention irrespective of educational background (Castan, Gallois, & Callan, 1985). In the same line it can be claimed that in the case of a possible health problem experienced by their children, they would not only be willing to play the role of the caregiver, but also adopt the role of a co-patient/client. So, there is a general claimed tendency for mothers (of younger chronically ill children, but possibly and of older ones with mild health problems in the context of larger Greek parenting patterns) (Theofanidis, 2012) to interact closely with doctors (present their children's symptoms, discuss, ask questions etc.). The mothers could be considered as caregivers who supervise, assure transport for medical appointments, manage medications, etc. (Goodman, Rabow, & Folkman, 2007a, p. 53) and at the same time as caregivers coordinate communication with the medical team (Goodman, Rabow, & Folkman, 2007b, p. 18).

In the medical context, there is a distinction between chronic (long-developing and slowly worsening over an extended time - period) diseases and acute (severe and suddenly worsening) diseases (Murrow & Oglesby, 1996; Vorvick, 2013). An example of a usual, nonfatal disease that the majority of children and teenagers experience is seasonal influenza, which is a contagious respiratory illness caused by various flu viruses. It can cause mild to severe illness with an average duration of 4-5 days. People who have the flu often feel some or all of these symptoms: fever or feeling feverish/chills, cough, sore throat, runny or stuffy nose, muscle or body aches, headaches, fatigue (tiredness). Some people may have vomiting and diarrhea, though this is more common in children than adults (Centers for Disease Control and Prevention, 2010). Most people (children, teenagers and adults), who get influenza will recover in a few days to less than two weeks and usually visit a doctor for consultation.

Aim of the present research is to examine the possible relation between symptoms of depressive mood and the quality of doctor-patient relationship-communication in a broader way, while emphasizing on the patients' perceptions. There were two groups of patients: 1) teenagers who were under treatment for seasonal influenza and 2) teenagers experiencing a variety of different under control chronic diseases (mainly asthma, diabetes, heart diseases), while visiting their doctors. All of them were accompanied during their visits by their mothers. So, the main research question is focused on whether having high scores on depressive symptomatology (as a teenage patient and/or as a mother and regardless of diagnosis) is accompanied by reports of a less satisfactory relationship-communication with the doctor. In this way the possible relationship between scores on depression of less educated mothers (high school education and/or basic education) and the quality of relationship-communication that they have with their doctor (while attending different pathologists or pediatricians in public or private health services in Northern Greece and Bulgaria) was examined. The interest in the educational variable in the doctor-patient relationship derives from the general assumption that the more educated mothers can become easily depressed in relation to more sensibility in communication as the better educated young people born in the 1970s who are more prone to depression (Joseph Rowntree Foundation, n.d.).

Additionally, a second hypothesis that was tested was if there would be a positive correlation between mother and child psychopathology (correlations between their scores on CES-D) on the one hand and the way that they understand/experience their relationship with the doctor. A third hypothesis tested was if the experience of an acute or a chronic illness would differentiate mothers and their teenage children not only on depression scores, but also on the perceived satisfaction they feel about the doctor. Finally, it was tested if age, sex (only in the case of teenagers), education, category of disease (acute-influenza or chronic) or depression predicted best the estimations of satisfaction with the doctor-patient relationship-communication.

## Materials and Methods

### Greek Participants

A total of 196 patients and caregivers-mothers living in rural areas in Northern Greece took part in the study. Fifty mothers (age:  $M = 49.42$ ,  $SD = 5.51$ , range = 35-60 years; level of education:  $M = 7$ ,  $SD = 1.04$ , range 6-18 years) completed the same questionnaires with their teenage sick children (20 boys and 30 girls with influenza, their age:  $M = 16.16$ ,  $SD = 1.04$ , range = 13-18 years; level of education  $M = 10$ , range 6-12 years). Forty-eight mothers (age:  $M = 47.41$ ,  $SD = 4.42$ , range = 37-59 years; level of education:  $M = 8$ ,  $SD = 1.04$ , range 6-18 years) completed the same questionnaires with their teenage sick children (18 boys and 30 girls suffering by a variety of chronic diseases – asthma ( $n = 19$ ), diabetes ( $n = 13$ ), heart disease ( $n = 10$ ), and epilepsy ( $n = 6$ ), age:  $M = 16.62$ ,  $SD$

= 0.95, range = 15-18 years; level of education  $M = 10$ , range 6-12 years). 43 of them had an income below the average, 124 had an average country income and 29 had an income above average.

### Bulgarian Participants

A total of 60 patients and caregivers-mothers were studied in urban areas in South-Western Bulgaria. Thirty mothers (age:  $M = 40.33$ ,  $SD = 9.69$ , range = 33-59 years; level of education:  $M = 16$ ,  $SD = 2$ ; range = 12-17 years) completed the same questionnaires with their teenage sick children (2 boys and 28 girls with different diseases – bronchitis ( $n = 10$ ), gastrointestinal disorders ( $n = 5$ ), toothache ( $n = 5$ ), and traumas from incidences ( $n = 10$ ), age:  $M = 13$ ,  $SD = 1.86$ , range = 11-16 years). 10 of the subjects had an income below the average for Bulgaria, 50 had an average income and no one indicated an income above the average.

### Instruments

Two self-administered questionnaires were used for both mothers and children. A short registration form to obtain some basic demographic data was also distributed with these questionnaires.

Participants had to respond to the Center for Epidemiological Studies-Depression Scale (CES-D), which is a general indicator of depressive symptomatology (Radloff, 1977). This questionnaire reflects more a disorder of normality despite an indication formed clinical entity (depression). Each item was answered on a four-point Likert scale of potential responses: 1 = none, 2 = one or two days a week, 3 = three or four days per week, and 4 = five days or more per week. Higher scores on the CES-D indicate more depressive symptoms (Zhang et al., 2011). Its overall internal consistency varies about  $\alpha = .83$  (González-Forteza et al., 2011) with alpha = .85 for Bulgarian pupils from 6<sup>th</sup> to 12<sup>th</sup> year of study (Kalchev, 2007, p. 99).

Also, a second questionnaire (20 questions coming from the Patient Satisfaction Questionnaire, PSQ – Grogan, Conner, Norman, Willits, & Porter, 2000) was administered. The questionnaire examined experienced satisfaction on a five-point Likert scale. Six items were reverse-scored. The questions were constructed according to relevant literature in order to assess a patient's overall satisfaction with medical care, and more specifically about the type of the interview that the doctor followed, verbal and nonverbal doctor behavior, the amount of information that was asked, the attitudes of the doctor and the employed strategies of control. Its Alpha coefficients ranged from .74 to .95 (Grogan et al., 2000) with alpha = .94 in the Bulgarian sample (from the preliminary results in the Bulgarian sample that should be augmented).

This was a correlation study with purposeful sampling of the voluntarily participating mothers and their ill children. The inclusion criteria for participation in the study were the recent (up to one week) or current child's illness becoming a reason for seeking a doctor's help, the child's age in the range of 12-18 years old, the children's and their mothers' agreement for participation and the possibility to contact with the young patients and their mothers near the hospitals.

Statistical analyses were performed using SPSS package for Windows, version 16. The statistics mean ( $M$ ), standard deviation ( $SD$ ), Pearson correlation coefficients ( $r$ ), regression analysis and Student's t-test ( $t$ ) were conducted.

## Results

Greek results indicated significant overall negative correlation between CES-D and PSQ ( $r = -.70$ ;  $p < .001$ ). More specifically, negative correlations were found for teenagers (both influenza sick and chronically ill) between their scores on CES-D and the questionnaire on satisfaction with doctor-patient communication ( $r = -.70$ ;  $p < .001$ ), and for their mothers between the scores on CES-D and the questionnaire on satisfaction with doctor-patient communication ( $r = -.71$ ;  $p < .001$ ). T-test showed statistically non-significant differences ( $t(194) = 0.66$ ;  $p = .254$ ) between CES-D scores for teenagers ( $M = 26.23$ ;  $SD = 12.09$ ) and mothers ( $M = 24.06$ ;  $SD = 13.19$ ), in spite of the finding that depression is slightly more expressed in the studied ill children. Some recent research findings also reveal that the age boundaries of depression widen among youth (Cole et al., 2012; Tezvaran, Akan, & Zahmacioğlu, 2012).

No statistically significant differences were found between the teenagers and mothers' satisfaction with their relationship with the doctors ( $t(194) = 0.48$ ;  $p = .632$ ). No statistically significant differences were found between the different categories of disease (acute-influenza or chronic) in the relationship with the doctors ( $t(194) = 0.70$ ;  $p = .485$ ) and in depression ( $t(194) = 0.31$ ;  $p = .760$ ).

Linear Regression model, "Enter" method indicated that only depression predicted satisfaction with the doctor-patient relationship/communication ( $R = .71$ ;  $R^2 = .5$ ; see also Table 1).

Table 1

Results From Regression Analysis for Several Predictors of Doctor-Patient Relationships in Greece

Model 1	B	Beta	t	p
(Constant)	95.17		11.47	<.001
Age	-.13	-.09	-1.37	.171
CES-D	-1.42	-.72	-13.81	<.001
Mothers' education (years)	-.66	-.08	-1.16	.248

Note. Dependent variable: Patient satisfaction.

The age and the years of mothers' education did not predict satisfaction with the doctor-patient relationship/communication in Greece (see Table 1). The mothers in the Greek sample were of similar educational background and with small variance in age, so a more heterogeneous sample could clarify more the effect of age and education on satisfaction with doctor-patient relationships and communication.

Bulgarian results indicated non-significant overall correlation between CES-D and PSQ ( $r = .12$ ;  $p = .37$ ), as well as non-significant correlation were found for teenagers between their scores on CES-D and the questionnaire on satisfaction with doctor-patient communication ( $r = .2$ ;  $p = .915$ ), and for their mothers between the scores on CES-D and the questionnaire on satisfaction with doctor-patient communication ( $r = .24$ ;  $p = .508$ ). T-test showed statistically significant differences ( $t(58) = 3.86$ ;  $p = .001$ ) between CES-D scores for teenagers ( $M = 23.5$ ;  $SD = 3$ ) and mothers ( $M = 33.3$ ;  $SD = 13.7$ ), the effect size was calculated by using Cohen's  $d = -.70$  that is medium effect size (Goodwin, 2004, p. 492).

No statistically significant differences were found between the teenagers and mothers' satisfaction with their relationship with the doctors ( $t(58) = 1.14$ ;  $p = .26$ ).

Linear Regression model, "Enter" method indicated that mainly the years of mothers' education, but also depression predicted satisfaction with the doctor-patient relationship/communication ( $R = .68$ ;  $R^2 = .46$ ; see also Table 2).

Table 2

Results From Regression Analysis for Several Predictors of Doctor-Patient Relationships in Bulgaria

Model 1	B	Beta	t	p
(Constant)	172.96		8.86	<.001
Age	.16	.18	1.21	.233
CES-D	-.73	-.56	-3.19	.002
Mothers' education (years)	-6.77	-.88	-6.75	<.001

Note. Dependent variable: Patient satisfaction.

The age did not predict satisfaction with the doctor-patient relationship/communication in Bulgaria (see Table 2).

The studied Bulgarians mothers ( $M = 33.3$ ;  $SD = 13.7$ ) felt more depressed than the Greek mothers ( $M = 24.06$ ;  $SD = 13.19$ ;  $t(127) = 3.46$ ;  $p = .001$ ), but no statistically significant differences were found in depression between the Bulgarian and Greek children ( $t(126) = 1.15$ ;  $p = .25$ ). No statistically significant differences were found in satisfaction with doctor-patient communication between the Bulgarian and Greek studied children ( $t(76) = 0.41$ ;  $p = .682$ ), neither between the Bulgarian and Greek mothers ( $t(100) = 1.27$ ;  $p = .208$ ).

## Discussion and Conclusions

The current study was intended to examine the relationships/communication between doctors, teenage children and their mothers, while focusing on the perceptions that both sick children and their mothers share about the doctor. The data suggest that the parents' (and specifically mothers') perception of their child's disease can be largely linked to mood disorders that they personally face (although none of the participants had an official diagnosis of depressive disorders) or that even a brief illness of a child (such as a seasonal influenza) can seriously influence the mood of the caregivers in a rather peculiar way for the Greek participants. In addition, the perceived satisfaction with the relationship between doctor and patient (both for parents and adolescents) is better predicted by the scores on the CES-D only for the Greek sample. Socioeconomic status, or in the present study, educational background, appeared not to affect certain perceptions of doctor-patient relationship in a fundamental way in Greece, but in Bulgaria mothers' higher educational status was related to more satisfaction with communication with the doctors. A possible interpretation of the Greek unexpected finding (high depression-high satisfaction) is that maybe the doctors change their behavior and try to achieve a better communication with the 'depressed' person (mother and child) or that depressed people (regardless of age) idealize the role and the general behavior of the doctor. Low level of depression together with low satisfaction with the doctor-patient relationship could mean that low satisfaction could be accompanied by some other emotional states like anger, for example.

There are several other studies which focus on communication and doctor-patient relationship (Eftimova, 2007; Paunova, 2003) or depression among medical staff (Galán-Rodas et al., 2011), young people (Cole et al., 2012; Tezvaran et al., 2012) and women (Büchtemann, Luppá, Bramesfeld, & Riedel-Heller, 2012). Few studies deal with mothers' experiences in doctor-patient relationships, especially from a cross-cultural perspective. This study has its limitations in the small sample size, and non-equivalent number and heterogeneity of the studied mothers

and children in Bulgaria and Greece. The medical staff's perceptions of their communication with the patient-children and their mothers could also be studied for a full-sided picture of doctor-patient relationships.

Future research should be conducted in samples sharing similar demographics and must also focus on psychological issues for more serious health problems (e.g. neurosurgical operations on children and teenagers) and the impact of these medical treatments on child and parent psychology in different cultural backgrounds. People who are high-scorers on depressive symptomatology seem to lack life satisfaction, but also satisfaction derived from social relationships (concerning the quantity and quality of these relationships). It seems that this is the case also for relationships that this kind of people have with their doctors, but not necessarily in the same way for different ethnic groups. Future research should examine the possible cross-cultural differences and clarify the factors that affect patient satisfaction with the doctor-patient relationship by examining and other factors as the individual characteristics of the doctors.

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