**THE COMUNICATION WITH RELATIVES OF SUSPECTED COVID-19 PATIENTS IN EMERGENCY:**

**DIFFERENCES BETWEEN GENDER, AGE AND EDUCATIONAL LEVEL**

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**Abstract**

Introduction. Communication in an Emergency Department (ED) is a crucial contributing factor to patient management and satisfaction. No data have been reported on the importance of relative’s satisfactions of suspected Covid-19 patients in ED.

Aims. In the present study we report the satisfaction level in relatives of suspected Covid-19 cases during the hospital admission.

Methods. This study is a prospective observational study and it was conducted at the Marcianise University Hospital, ASL Caserta, Italy. We evaluated the satisfaction level using the questionnaire CAT-T and we describe the educational level, age, and gender differences in relatives of suspected Covid-19 patients. We included 1201 relatives of suspected Covid-19 patients admitted to Emergency Department (ED) between 21 February to 31 December 2020. We excluded 148 relatives who were younger than 18 years old and 151 with no information on education level.

Results. We report the average answer (AA) for items for gender, age and educational level. In particular, we observed that the AA mean for women was significantly increased compared to man (4.7 vs 3.9 respectively, p< 0.01); the AA mean for young patients (age < 65 yrs old) was significantly decreased compared to older age (3.8 vs 4.3 respectively, p< 0.01) and we describe that over 65 yrs with low educational level had a significantly higher AA (4.7 vs 3.9, p< 0.01) compared to young people.

Conclusion. In the present study we described, for the firs time, the role of educational level, age and gender differences in satisfication level in ED in relatives of suspected Covid-19 patients. In particular, we reported that the average answer is significantly higher in women, low graduated and older patients. This data underlined the crucial role of communication in relatives during Covid 19 Pandemia.

**Keywords:** pandemia, COVID-19, gender differences, educational level, satisfication

**Introduction**

Communication in an Emergency Department (ED) is a crucial contributing factor for patient management and satisfaction. In fact, ineffective communication is a major cause of critical medical adverse effects in Emergency Department (*1*). A study conducted by US National Institutes of Health points out that two significant factors causing critical incidents were “blurred boundaries of responsibility” and “distorted or inhibited communication” (2*)*. Slade et al., examined clinician-patient communication in Emergency Department in Australia and report that the quality of patient’s care and experience are affected by the contextual complexity of Emergency Department (3). In addition, communication in Emergency Department was rarely relatives-oriented with very little empathy being developed between the relatives and clinicians. No studies have reported the satisfaction level in relatives of suspected Covid-19 cases during the hospital admission. Thus, the present study evaluates the pivotal role of communication in relatives of suspected Covid-19 cases admitted to Emergency Department.

**Methods**

*Study Design*

 This study is a prospective observational study and it was conducted at the Marcianise Hospital, ASL Caserta, Italy. The Ethics Committees Campania Nord approved it. All participating signed a consent form to be interviewed. Ten (10) clinicians and 25 nurses work in the ED. 1500 relatives of suspected Covid-19 patients admitted to Emergency Department (ED) were enrolled between February - December 2020. The database included information about demographic characteristics, including educational level, clinical outcome, age, and gender. In Table I we reported the baseline clinical characteristics of enrolled relatives. We excluded 148 relatives who were younger than 18 years old and 151 patients with no information on education and included 1201 cases in the study.

*Method of measurement*

Each relatives’s educational level was classified as high (a bachelor's degree or higher), medium (graduated from high school or middle school), or low (graduated from elementary school or no education). We used the questionnaire CAT-T (4). In this questionnaire we also include clinical history evaluation, age, sex, nationality, educational level, triage code. Exclusion criteria were: relatives with neuro-psychiatric diseases, psychological instability. In Table 2 we reported the baseline characteristics of nurses and clinicians that work in Emergency Department.

*Statistical analysis*

We used a descriptive analysis to compare the demographic and clinical characteristics of relatives with low, medium, and high levels of education. This included age, sex, medical history, health behaviors. The T2 test was used to compare categorical variables.

Table I. Clinical characteristics of enrolled relatives.

|  |  |
| --- | --- |
|  |  |
| N. (Male %) | 1201 (57) |
| Age < 65 yrs (%) | 650 (43) |
| Age > 65 yrs (%) | 551 (36) |
| Italian Nationality (%) | 1110 (93) |
| Higher educational level (%) | 17 |
| Medium educational level (%) | 47 |
| Low educational level (%) | 36 |

Table II. Demographic data nurses and clinicians’.

|  |  |  |
| --- | --- | --- |
|  | **Nurses** | **Clinicians** |
| Mean Age | 34±2 | 41±2 |
| Age < 35 yrs (%) | 27 | 15 |
| Mean experience in ED (years) | 7.1±1 | 6.4±1 |

**Results**

In figure 1 we report the average answer (AA) for items. In particular, we observed that AA min was 3.6 and AA max was 4.2.

**AA**

In figure 2 we reported the AA for gender. In particular, we observed that the AA mean for women was significantly increased compared to man (4.7 vs 3.9 respectively, p< 0.01).

In figure 3 we reported the AA for age. In particular, we observed that the AA mean for young patients (age < 65 yrs old) was significantly decreased compared to older age (3.8 vs 4.3 respectively, p< 0.01).

In figure 4 we reported the AA in relation to age and educational level. In particular, we observed that over 65 yrs with low educational level had a significantly higher AA (4.7 vs 3.9, p< 0.01) compared to young people.

**Figures**



Average answer (AA) (AA min and AA max) for items in CAT-T questionnaire.



Score CAT-T for female in grey column and for male in white column, (★p< 0.01).



Score CAT-T for older age in grey column and for under 65 yrs old in white column, (★p< 0.01).

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Score CAT-T in relation to age and educational level. At the left, over 65 yrs old with low educational level (white column) compared to under 65 yrs old (★p< 0.01).

**Discussion**

 Our data represent a preliminary study that evaluate the role of educational level, gender differences on the satisfaction level in relatives of Covid-19 suspected cases, enrolled to Emergency Department. No data reported the satisfaction level in relatives of Covid-19 suspected cases admitted to Emergency Department during Covid-19 pandemia. The Covid-19 has placed enormous stress on hospitals, clinicians and general population. It is crucial provide guidance on how to communicate with patients and relatives of Covid-19 suspected cases. The communication is only one part—albeit an essential part—of what clinicians will need to survive well. In fact, this is an important for the satisfaction level in relatives of Covid-19 suspected cases. The importance of clear and accurate communication between clinicians and relatives in a variety of formats has always been essential for population admitted in Hospital. The lack of accessible information, during Covid-19 pandemia, is a key site of anxiety and further concern. This is an original study, that showed, for the first time, in Emergency Department, that less educational level, female gender and older age were more likely to want the satisfaction relatives. These dimensions have not been previously explored. To this regard, we reported that the average answer is significantly higher in women, low graduated and older relatives. No data reported the role of age, gender and educational level on the relative’s satisfaction in ED. As reported in other studies, male and younger patients were more likely to want the error reported. Recent data suggest that satisfaction level of patients increases with level of education (5). It is possible that individuals with more educational level may be more suspicious with clinicians and nurses, trying to found potential mistakes. In our study, we report that the older with low education level and women have a major average answer. In fact, it has been reported that educational interventions to assist clinicians may want to emphasize the uniformity of patient preferences and describe the generally positive response to disclosure with respect to legal action (6). Future studies are needed to confirm these data.

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