

Original Research Article

Influence of educational status of hospitalized patients on knowledge of and attitudes towards informed consent during clinical practice in Kuwait

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Abstract

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Informed consent during clinical practice is an essential component of comprehensive medical care and is a requirement that should be sought all the time the doctor interacts with the patients, though very challenging when it comes to implementation. Since the magnitude and frequency of surgery related risk are higher in a resource-limited setting, informed consent for surgery in such settings should be more comprehensive. Studies indicated that educational status is related to the desire to patient attitude and readiness to be involved in decisions concerning one's healthcare with respect to informed consent. The purpose of this study is to explore the influence of educational status on knowledge and attitudes towards the practice of informed consent in Kuwaiti hospitals. A cross-sectional survey was conducted from January to June 2016 in both public and private hospitals of Kuwait. A random sample of 910 patients admitted to hospitals selected was asked to participate in the study. Data was collected by using pilot-tested structured self-administered questionnaires on awareness and attitudes towards ethical and legal aspects of informed consent as well as perceived needs for knowledge related to these issues. The questionnaires were distributed to hospitalized patients in different surgical disciplines after obtaining their verbal consent. The statistical analyses of this study were performed using SPSS 21.0 package program. Out of the patients selected, 805 were enrolled (response rate 88.5%). Men respondents comprised 48.3% and women were 51.7%. More than 72.6% were aged below 40 years and 73.4% were married. The level of education was significantly associated with informed consent decisions. As compared to lower literacy patients; a higher proportion of patients with above secondary education (76.4%) believed that informed consent was a legal requirement. Moreover, significantly higher proportion of patients with above secondary education (87.9%) understood that there are risks involved in having the operation. However, level of education did not significantly influence thoughts that signing the consent meant waiving their rights to any compensation nor that consent form was to protect the patient's rights. Patients with above secondary education were significantly more felt need for knowledge about the indication for the surgery (96.2%), what will be done during the operation (91.5%), information about post-operative care (90.4%), after how many days should resume work (91.5%), chance of successful results of the operation (90.1%), any special precaution have to be taken after the operation (90.7%), and the final decision that should be taken after discussion of Pros and Cons of the treatment (89.3%). The desire to be involved in decision-making with respect to inform consent is not related to educational status however great need of knowledge about the informed consent practice increased with level of educational attainment. There is a need to improve communication between doctors and patients, a number of suggestions, including the need for a detailed explanation for the patient by the doctor about their disease conditions and surgery circumstances were suggested.

Keywords: Informed consent, Educational status, Knowledge, Attitude.

INTRODUCTION

Informed consent is one of the fundamental personal rights for an individual to know and determine what will be done to his/her own body, and also for legalizing the procedure. It originated to protect the legal and ethical rights of the patient, and to improve doctor patient relationship and health care system. The most important goal of informed consent is that patient can acquire knowledge and can take proper decision suitable to him (Bhurgrri et al., 2004). Consent should be obtained from the patient except in situations where the patient is unable to give consent. Such situations include when dealing with a minor, unconscious patients, accident victims etc. In such cases, consent may be obtained from the next of kin, relations, a court of law or the most senior doctor in the institution. The American Medical Association has over a period of 144 years moved drastically from overt physician paternalism to greater patient involvement (Edge et al., 1998). This could be due to the increasing awareness of the patients on their right to know and be involved. It has been reported that the desire for patient involvement and readiness to seek consent is directly related to educational attainment of the patient (Jebbin et al., 2004; Agu et al., 2003; Osime et al., 2004). Education helps to neutralize the various cultural and social factors that may influence demand for consent and bridges the gap between the doctor and the patient, encouraging discussion on medical matters (Ezeome et al., 2009).

For consent obtained in clinical practice, information given to the patient must include at least the risk and benefits of a procedure and treatment, appropriate professional advice on option and a patient's choice of preferred option and authorization for physician (surgeon) to begin. Such information should be given in a way that the patient can understand and appropriate to his/her culture. The need to provide relevant and comprehensible information to patients before invasive procedures is continuously increasing. However, despite these requirements; instances still arise in which patients claim to have been inadequately provided with the information necessary to make informed decisions (Informed consent in human subject research, 2013).

Patient invitation to participate in the decision-making process could be justify as a lack of competency. Poor educational status has been blamed for this passivity (The Nuremberg Code. <http://www.cirp.org/library/ethics/nuremberg/>). In a previous study, only 20% of the physicians who participated regarded obtaining informed consent solely as respect for the patient's right to self-determination [9]. The rest of physicians sought informed consent when dealing with an educated or enlightened patient, when there is a high risk of complications or to avoid malpractice lawsuits (Medical and Dental Council of Nigeria: Codes of Medical Ethics in Nigeria, 2004). Some studies have, also, shown that there may be

underestimation of needs by patients for detailed preoperative information (Jebbin and Adotey, 2004; Ezeome et al., 2009; Chu et al., 2012). Some surgeons opt for partial disclosure of information believing that full disclosure of information may affect the patient adversely (Agu, 2003).

In contrast to Western cultures, which adhere to more individually oriented philosophies, traditional Kuwaiti cultures place more value on the collective role of family in decision-making. Due to this reason in the hospital practice of our region, most often patients are given inadequate information about their surgery before operation. Moreover, there is limited research is available from our country about the usual practice of preoperative informed consent.

Despite the high disease burden and high risks associated with surgical care, to our knowledge, no formal evaluation of what surgical patients go through in terms of participation in decision making had been conducted in Kuwaiti hospitals. This study was conducted to assess awareness, attitude and perceived needs for knowledge of hospitalized patients in Kuwait to the clinical practice of informed consent and the relationship to educational status. This information will be of use to doctors especially surgeons in the management of patients.

SUBJECTS AND METHODS

A descriptive cross-sectional survey was conducted from January to June 2016 in the state Kuwait. All public general hospitals (n = 6) and two private hospitals were randomly selected out of the eleven private hospitals as research settings. The study population was patients 18 years and above admitted to the surgery departments in the selected hospitals. Sample size for study participants was calculated using a web based freely accessible sample size calculator, Raosoft (Raosoft, 2013). Based on the formula for sample size and margin of error from Raosoft, the estimated sample size for participants was for the recruitment of 910 participants.

Structured self-administered questionnaires were distributed to the patients hospitalized in surgery departments of Kuwaiti hospitals. In this study, a questionnaire was developed and handed out to patients who had just undergone surgery and who were counseled before their elective surgery and signed their consent forms. The questionnaire was derived from different published studies dealing with the same topic as well as from personal experience. It took 15-20 minutes to be filled. To increase the response rate repeated visits was sometimes necessary to collect completed questionnaires from the patients. It consisted of three sections; the first section collected information on

Table 1. Demographic characteristics of hospitalized patients in Kuwait

Characteristics	No. (n =805)	%
Age group (years)		
<30	233	28.9
30-	352	43.7
40-	129	16.0
50+	91	11.3
Mean ± SD	35.6 ± 3.5	12.4 ± 4.1
Gender		
Male	389	48.3
Female	416	51.7
Nationality		
Kuwaiti	396	49.2
Non-Kuwaiti	409	50.8
Educational status		
Below intermediate school	167	20.7
Secondary level	274	34.0
Higher than secondary	364	45.2
Marital status		
Single	168	20.9
Married	591	73.4
Divorced	24	3.0
Widowed	22	2.7

participant demographics (age, gender, nationality, education status and marital status), the second section included 3-point Likert type scale questions about awareness, attitude and understanding concerning ethical and legal aspects of informed consent. Each question was varied in response from disagree, not sure and agree. The third section included willingness to know before signing consent form. The questionnaire was pilot-tested by 30 patients prior to being finalized. The investigators reviewed feedback from the pilots, and, where appropriate, questions were modified accordingly.

The data were analyzed using Statistical Package for Social Sciences (SPSS) version 21. The analysis was descriptive and univariate. Chi-square for trend was used to analyze differences in response from the increasing levels of education. Confidence interval was 95% and P value <0.05 was regarded as significant. The reliability and validity of the questionnaire was assessed by calculating the correlation statistics for the intra-questionnaire groups of questions.

Ethical considerations

Ethical review and approval was sought from the Research Ethics Committee of Kuwait Ministry of Health. Permission to conduct the study was obtained from the respective hospital administrations selected. Informed verbal consent was obtained before recruitment of any participant into the study. Participant's identifying information was kept confidential. To maintain confidentiality, questionnaires were made anonymous.

RESULTS

Demographic characteristics of participating patients are as shown in Table (1). Out of the patients selected, 805 were enrolled (response rate 88.5%). They comprised 389 men (48.3%) and 416 women (51.7%). More than 72.6% were aged below 40 years and 591 (73.4%) were married. Nearly half (49.2%) were Kuwaiti. Regarding educational status, one fifth (20.9%) were below intermediate school. However, one third (34.0%) were secondary level and 45.2% were higher than secondary.

Table (2) shows patient's awareness, attitude and understanding towards ethical and legal aspects of the informed consent according their educational status. Despite the legal importance of the consent and its presence in the signed documents as a standard procedure, yet only 69.9% of patients believed that it was a legal requirement. A significantly higher proportion of patients with above secondary education believed that informed consent was a legal requirement (76.4%) compared to 63.9% and 65.9% of secondary and intermediate or below respectively, $P=0.001$. The level of education plays an important role in informed consent decisions. Significantly higher proportions of secondary (86.9%) and above secondary educated patients (87.9%) understood that there are risks involved in having the operation as compared to 79.6% of intermediate educated patients where $p = 0.033$. on the other hand, as compared to above secondary educated patients significantly more lower educated patients (47.3%) thought that if they are not able to sign the consent form, the operation cannot be done even if this means that the

Table 2. Perceptions and attitudes of patients in hospitals of Kuwait towards legal and ethical aspects of informed consent according to their educational status

Knowledge and attitude statement	Educational status			Total	P value
	≤ Intermediate	Secondary	Above secondary		
Number of patients	167	274	364	805	
Signing the consent form is a legal requirement	65.9	63.9	76.4	69.9	0.001*
Signing the consent form removes your right to compensation	42.5	36.9	34.6	37.0	0.216
Consent form is to protect the doctor against being sued	61.7	62.4	56.3	59.5	0.244
Consent form is to protect the patient's rights	74.9	67.2	75.0	72.3	0.064
Signing the consent form conforms that operation and its effect have been explained satisfactory to me	73.7	68.2	76.1	72.9	0.085
I have signed the consent form so that I can undergo the operative procedure	74.9	77.0	76.6	76.4	0.865
You have the right to change your mind after signing the consent form	68.3	66.4	64.3	65.8	0.648
If you can't sign the consent form, can your relative sign on your behalf	77.8	76.6	80.2	78.5	0.538
If you are not able to sign the consent form, the operation cannot take place, even if this means you could die	47.3	43.4	32.1	39.1	0.001*
That the doctor may do something different from what was on the form if he/she thinks it is best for me	58.7	67.2	61.8	63.0	0.167
That I understood that there are risks involved in having the operation	79.6	86.9	87.9	85.8	0.033 *

P value of χ^2 for trend, significant at <0.05 level

Responses are expressed as percentages of patients who agreed about the statement

patient could die, $p = 0.001$.

Although 82.0% of patients desired to be involved in decision-making with respect to informed consent, however, this desire is not significantly related to their educational status ($p = 0.257$). Moreover, in table (2), level of education did not significantly influence whether the person thought that signing the consent meant waiving their rights to any compensation, $P=0.216$, consent form was a protective shield for doctors ($P=0.244$) or to protect the patient's rights, $P=0.064$. Similarly, level of education did not significantly influence patients' thoughts that signing the consent form conforms that operation and its effect have been explained satisfactory to them, $P=0.085$ or signing the consent form so that they can undergo required operative procedure, $P=0.865$. Moreover, level of education did not significantly influence patients' thoughts that they had right to change their minds after signing the consent ($p = 0.648$), their relative could sign on your behalf, if they cannot sign the consent form ($p=0.538$), or the doctor cannot do anything different from what was on the form unless it is lifesaving $P=0.167$

Perceived need of hospitalized patients in Kuwait about knowledge related to their treatment is presented in

table (3). Significantly higher proportions of above secondary educated patients were willing to know the indication for their surgery (96.2%), what will be done during the operation (91.5%), duration of the operation (82.4%), post-operative care (90.4%), resume work after how many days (91.5%), the chance of successful results of the operation (90.1%), special precautions have to be taken after the operation (90.7%), the final decision will be made after discussion of pros and cons of the treatment (89.3%) the chance of successful results of the operation (90.1%), special precautions have to be taken after the operation (90.7%), the decision process for treatment will be made after discussion of pros and cons of the treatment (89.3%) as compared to lower proportions of low literacy patients (88.6%, 81.4%, 82.6%, 74.3%, 79.0%, 80.2%, 80.2% respectively), $p < 0.05$ for all.

However, level of education did not significantly influence need of knowledge about all complications ($p=0.147$), dietary advice after the operation ($p=0.484$), cost of treatment ($p=0.386$), and details of the operation ($p=0.550$), potential benefits of the surgery ($p=0.301$), potential morbidity ($p=0.248$), potential mortality

Table 3. Perceived need of hospitalized patients in Kuwait about knowledge related to their treatment

What the patient want to know	≤ intermediate	secondary	Above secondary	Total	P value
Number of cases	167	274	364	805	
Indication for the operation	88.6	93.1	96.2	93.5	0.004 *
What will be done during the operation	81.4	88.7	91.5	88.4	0.003*
For how much time operation will be done	73.7	82.5	82.4	80.6	0.038*
Important risk and possible complications involved in having the operation and recurrence	76.6	85.8	83.0	82.6	0.048*
All complications	73.7	80.7	80.5	79.1	0.147
Information about Post OP care	82.6	87.6	90.4	87.8	0.040*
After how many days you should resume your work	74.3	85.0	91.5	85.7	0.000*
Chance of successful result of your operation	79.0	88.3	90.1	87.2	0.001*
Any special precaution to be taken after operation	80.2	89.1	90.7	88.0	0.002*
Any special dietary advice to be considered after operation	84.4	86.5	88.2	86.8	0.484
Cost of treatment	80.8	85.8	83.2	83.6	0.386
I do not want to know anything but i will do what doctor recommends	58.1	43.1	39.8	44.7	0.000*
I want to know about my treatment but will do what doctor recommends	88.6	89.1	88.2	88.6	0.944
The decision process of treatment will be made after discussion of pros and cons of the treatment	80.2	86.9	89.3	86.6	0.017*
Details of the operation	85.6	83.6	81.9	83.2	0.550
Potential benefits of the surgery	82.6	84.3	87.4	85.3	0.301
Potential morbidity	69.5	76.6	74.2	74.0	0.248
Potential mortality	59.9	63.9	59.3	61.0	0.483
Predicted postoperative course	71.9	81.8	81.6	79.6	0.020*
Projected recovery	76.6	81.0	79.9	79.6	0.531
Other treatment options	65.9	69.0	69.0	68.3	0.746

P value of χ^2 for trend, significant at <0.05 level

Responses are expressed as percentages of patients who agreed about the statement

(p=0.483), projected recovery (p=0.531) and other treatment options (p=0.746).

DISCUSSION

Most of the patients want to be aware of their legal and ethical rights but proper guidance and availability of hands on information is lacking. Patients need to look at informed consent as not only an ethical and legal obligation, but also of benefit to patients. Before any procedure patient must know reason, benefits, risk, alternative procedure, its risk and benefits, limitations after procedure and cost of procedure (Bates, 2001).

Several studies have shown that written information in the language patients can understand has beneficial effects. Patient information sheet must be necessary before obtaining their informed consent (Askew et al., 1990; Lewis et al., 1991).

Our study showed that many patients have limited knowledge of the legal implications of signing consent forms which is similar to study done by Akkad et al. (2006). The present study revealed that 69.9%% patients wrongly believed that informed consent was a legal

requirement. 37.0% thought that signing the consent meant waving their rights to any compensation. Most (76.4%) of the patients thought that they can't refuse procedure after signing the consent, and 39.1% of patients wrongly believed that the operation cannot take place if the patient is not able to sign the consent form, even if this means he could die. Similar observations were also made by another study from Egypt (Ahmed and Dewedar, 2011).

A study was conducted during the year 2011 to investigate patients hospitalized in surgery departments regarding knowledge levels on the informed consent. It was determined that most of the patients (70.2%) have no adequate knowledge on this subject (Jukic et al., 2011). Also, a study was carried out in year 2010 on 106 patients, it was emphasized that only 38% of the patients understood the informed consent given prior to the operation (Siddiqui et al., 2010). In a study (2005), 89.9% of the patients declared that they have been told why they had to have medical operation, but 74.2% of them found this explanation to be not satisfactory (Turla et al., 2005).

Given this data, it can be seen that there is a need for improvement in recognition of the importance of informed

consent among our patients, that the physicians brief patients more, and that the requests of patients on this subject gradually increased.

For years the levels of risk to be disclosed during informed consent have been a matter of debate. Many surgeons have taken the 1-2% risk as the cut-off point to which operative risks should be discussed during informed consent (Calman, 2002). In the present study, a higher proportion of high-educated patients significantly understood that there are risks involved the operation. In a study conducted in Saudi Arabia (2011), the majority of surgeons agreed with the need to disclose to patients the risk of death (if present) and to disclose all major risks with incidence >1% and all minor risks with incidence >5% (Jamjoom et al., 2011).

In this study, the issue of who receives the informed consent and signs the form was addressed. It was found that the majority of patients irrespective of their educational level knew that if cannot sign the consent form, a relative can sign it on behalf. The universal practice amongst all cultures is that informed consent is obtained from the patients themselves if they are of legal age and mentally and physically capable. Otherwise, the informed consent is obtained from a legal guardian or a close family relative. The lineage of who is considered more qualified to give the consent may differ between cultures with priorities given to the paternal side relative in Islamic cultures (Jamjoom et al., 2011).

It is recognized that patients vary in the amount and type of information they want and are able to comprehend and retain and it has been shown that educated patients are more actively involved in decision-making with regards to their treatment (Dawes and Davison, 1994). Some also stated that patients' educational status has an effect on information recall and understanding (Lavelle-Jones et al., 1993). The present study showed that the desire to be involved in decision-making about respondents' health is not related to educational status. Therefore, informed consent policy should be conscientiously upheld irrespective of one's educational attainment.

In this study, a statistical significant difference was found between the educational status and perceived need of knowledge about the duration of time to return to normal activities. The greater proportion of more educated respondents need information about time of work resuming. It was determined that those having higher educational status were in struggle for obtaining information, and that the patients having other educational levels were not interested in obtaining adequate level of information on the diseases. This indicates that, among the patients having higher educational status, the effort for integrating with the social life is higher when compared to others. For this reason, because of the higher expectations of patients, who have higher educational status, from the treatment and also their consciousness levels than those of other education

groups, we believe that their ability to understand what is told and also their level of awareness are high (Dawes and Davison, 1994).

It was found in this study that majority of the patients were interested to know about, possible risks and complications involved in surgery, and chances of successful result which is similar to study from New Zealand (Newton et al., 1998). Some authors noted that providing information about risks and complications causes undue and unnecessary anxiety and timidity among patients and make them weak to decide (Stenchever, 1991). Pimentel et al. (1999) investigated the desire for information in patients with cancer and reported that most of the patients wanted to know as much as possible about their illness and treatment to have long survival (Ghulam et al., 2006).

Unfortunately, in this study significantly higher proportion of low educated patients declared that they do not want to know any information and will do what doctor recommends. Because of this mind set of people some time informed consent is not serving its actual purpose. Many times information given to the patients is inadequate and many times it may be over loaded beyond their capacity to digest it. Some investigators argued that some patients want little or no information about therapeutic risks and that the standard of the disclosure of the reasonable patient should not be applied to them (Doyal, 2002; Burkell and Campbell, 2005; Rounsaville et al., 2008).

CONCLUSION

In conclusion, patients, irrespective of educational status, have no sufficient knowledge about the informed consent. Patient awareness programs must be conducted by appropriate authority with help of media and television to improve their knowledge and preserve their rights. Perceived need for knowledge about the informed consent practice increased with level of educational attainment but, the desire to be involved in decision-making is not related to educational status therefore, the uneducated and poorly educated desire to be informed and, the instrument for obtaining consent should be simplified and easy for such patients.

Limitations of the study

Non-availability of adequate funds and logistics limited the geographical coverage of the study.

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