Knowledge regarding complications of diabetes mellitus among students in selected colleges Nellore

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Abstract

Background: Diabetes mellitus is chronic disease characterized by either a deficiency of insulin (or) decreased ability of the body to use insulin. Diabetes mellitus is one of the leading chronic diseases. This syndrome affects the metabolism of the carbohydrates, proteins, fat, water and electrolytes. Complications of diabetes mellitus are caused by neuropathic and vascular complications of disease nerve damage due to diabetes cause altered (or) complete loss of sensation in the foot (or) leg called as peripheral neuropathy pressure from shoes. A filled foot wear cuts burns (or) any injury to the foot may go unnoticed will lead to the loss of the perception will further lead to ischemia necrosis and gangrenous formation and ultimately lead to amputation1.

Aim: To assess the level of knowledge on complications of diabetes mellitus among students in selected colleges, Nellore.

Material and method: Study conducted by using the quantitative research approach by using descriptive research design was adopted to assess the knowledge regarding complications of diabetes mellitus among students in selected colleges, Nellore.

Statistical Analysis Used: The collected data was organized, tabulated, analyzed and interpreted by using descriptive and inferential statistics based on the objectives of the study.

Results and Conclusion: The results reveals that the level of knowledge 1(3.3%) had ‘A’ grade knowledge, 1(3.3%) had ‘B+’ grade knowledge, 2(6.7%) had ‘B’ grade knowledge, 2(6.7%) had ‘C’ grade knowledge, 24(80%) had ‘D’ grade knowledge.

Keywords: Diabetes mellitus, students, knowledge, complications

Introduction

Diabetes mellitus called “silent killer disease” and now recognized as one of the fastest growing threats to public health in almost all countries of the world. It is also called the disease of prosperity” around 150 million people suffer from diabetes in the world out of which above 35 million are Indians. Complications of diabetes mellitus are caused by neuropathic and vascular complications of disease nerve damage due to diabetes cause altered (or) complete loss of sensation in the foot (or) leg called as peripheral neuropathy pressure from shoes. Unfilled foot wear cuts burns (or) any injury to the foot may go unnoticed will lead to the loss of the perception will further lead to ischemia necrosis and gangrenous formation and ultimately lead to amputation1.

The impact of diabetes is staggering serious and costly complication such as heart diseases kidney failure and blindness are among the common complications affect the individual with diabetes. Diabetes mellitus is now seen as a heterogeneous group of disease characterized by a state of chronic hyperglycemia, resulting from a diversity of underlying cause of a etiologies environment and genetic and which is acting jointly. The triad of peripheral neuropathy peripheral arterial disease and infections is responsible for diabetes mellitus.

Diabetes mellitus neuropathy is probably the most common complications of diabetes studies suggest that up to 50% of people with diabetes are affected to some degree major risk factor of this condition are the level and duration of elevated blood glucose. Neuropathy can lead to sensory loss and damage to the limbs. It is also a major cause of impotence of diabetes mellitus2.

Objectives of the Study

To assess the level of knowledge on complications of diabetes mellitus among students in selected colleges, Nellore.
To associate the level of knowledge regarding complications of diabetes mellitus among students in selected colleges with their selected socio demographic variables.

**Detailed Research Plan**

**Research Approach:** Quantitative Approach.

**Research Design:** descriptive research design.

**Research Setting:** The study was conducted in Sree Narayana nursing college, VRC College in Nellore.

**Sampling Technique:** The convenience sampling techniques was used for selecting the subjects.

**Sample Size:** The sample size selected for the study was 30 samples.

**Description of tools:** With the help of extensive review from various text books, journals, and the net sources, the tool was developed to assess the knowledge regarding complications of diabetes mellitus among students in Sree Narayana nursing college, VRC colleges, Nellore. The tool is divided into two parts

Part-I deals with the socio-demographic variables such as age, gender, course of study, year of study, place of residence, source of information.

Part-II deals with self structured questionnaire to determine the level of knowledge regarding complications of diabetes mellitus among students in Sree Narayana nursing college, VRC colleges it consists of 25 multiple choice questionnaire. Out of which the correct answer was given “1” and wrong answer was given score “0”.

**Score interpretation**

<table>
<thead>
<tr>
<th>Grade</th>
<th>Score</th>
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<tbody>
<tr>
<td>A+</td>
<td>More than 85%</td>
</tr>
<tr>
<td>A</td>
<td>More than 75%</td>
</tr>
<tr>
<td>B+</td>
<td>More than 65%</td>
</tr>
<tr>
<td>B</td>
<td>More than 55%</td>
</tr>
<tr>
<td>C</td>
<td>More than 50%</td>
</tr>
<tr>
<td>D</td>
<td>Less than 50%</td>
</tr>
</tbody>
</table>

**Results and discussion**

**Description of demographic variables of adults**

- Pertaining to age of 11(36.7%) college students were between 18-20 years of age 15(50%) were between 20-25 years, & 4(13.3%) were between 25-30 years of age.
- Concern to gender 11(36.7%) college students were male and 19(63.3%) were female.
- Related to course of study 7(23.3%) of college students were studying inter mediate and 7(23.3%) were studying b.com, 7(23.4%) were studying B.ed and 9(30%) were studying b.sc(n).
- With context to years of study 5(16.7%) college students were studying 1st year, and 16(53.3%) were studying 2nd year, and 9(30%) were studying 4th year.
- Refers to place of residence 18(60%) of college students lives in urban area, and 12(40%) lives in rural area.
- Refers to source of information 9(30%) college students gained information through mass media, 5(16.7%) gained information through books, 11(36.6%) gained information through newspapers, and 5(16.7%) gained information through journals.
- Related to level of knowledge 1(3.3%) had A grade knowledge, 1(3.3%) had B+ grade knowledge, and 2(6.7%) had B grade knowledge, and 2(6.7%) had C grade knowledge, and 24(80%) had D grade knowledge.

**Table 1:** Frequency & Percentage distribution of level of knowledge regarding complications of diabetes mellitus among college students.

<table>
<thead>
<tr>
<th>Level of knowledge</th>
<th>Frequency (F)</th>
<th>Percentage (%)</th>
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<tbody>
<tr>
<td>A</td>
<td>1</td>
<td>3.3</td>
</tr>
<tr>
<td>B+</td>
<td>1</td>
<td>3.3</td>
</tr>
<tr>
<td>B</td>
<td>2</td>
<td>6.7</td>
</tr>
<tr>
<td>C</td>
<td>2</td>
<td>6.7</td>
</tr>
<tr>
<td>D</td>
<td>24</td>
<td>80</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>30</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

**Table No-1:** shows that with regard to level of knowledge 1(3.3%) had ‘A’ grade knowledge, 1(3.3%) had ‘B+’ grade knowledge, 2(6.7%) had ‘B’ grade knowledge, 2(6.7%) had ‘C’ grade knowledge, 24(80%) had ‘D’ grade knowledge.

**Fig 1:** Percentage distribution of level of knowledge regarding complications of diabetes mellitus among college students.
Association between the level of knowledge regarding complications of diabetes mellitus among college students with their selected socio demographic variables.
There is significant between level of knowledge regarding complications of diabetes mellitus among students in SNNC, VRC colleges with the selected socio-demographic variables in course of study, year of study, source of information.

Nursing implications: The findings of the study various implication in various area of nursing and nursing practice, nursing educational, nursing administration and nursing research.

Nursing practice: The nursing curriculum should focus on updating the level of knowledge regarding complication of diabetes mellitus among college students. The nurses need to have adequate knowledge regarding complication of diabetes mellitus.

Nursing education: This research is to build up a body of knowledge in using as over evolving profession. The result of the study can be provided to share knowledge base formula the protocol and better out comes.

Nursing administration: Nursing administration should develop certain plans and policies to be implemented to improve the knowledge regarding the complication of diabetes mellitus among college students.

Nursing research: Awareness programs discussion health comps, seminars and role plays can be conducted for improving attitude management and practice regarding the complications of diabetes.

Recommendations: On the basis of findings of the study recommendations are being made.

- A similar study can be replicated as a large sample to generalize findings special education programme can be provide to college students.
- A similar study can be done in different sittings.
- An experimental study can be conducted to assess the effectiveness of complication of diabetes mellitus results in various settings.

Conclusion: The study concludes that majority of college students, 24(80%) had D grade knowledge are having complications of diabetes mellitus in Nellore.

References