SNA: The Optimal Nodes to Raise Nurses' Infosec Awareness

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Abstract. Social Network Analysis (SNA) can promote Infosec awareness. A sample of 164 nurses selected the most trusted actors to get Infosec updates. UCINET 6 and NetDraw were used for mapping and PSPP 1.6.2 was used for data analysis. Nurses tend to trust managers, colleagues and IT professionals for retrieving Infosec updates.

Keywords. Social network analysis, nursing, information security

1. Introduction

Social Network Analysis (SNA) affect Infosec climate [1] and has been applied in Infosec strategy development and training [2]. Our research was influenced by the normative approach [3] aiming at identifying the most trusted nodes for sharing Infosec clarifications, according to the nurses' perspective.

2. Methods

Six nodes were identified: 1-Colleagues, 2- Manager/s, 3-Doctor/s, 4-IT professionals, 5-Pharmacist/s, 6-Other/s. Nurses (n=165) selected one or more nodes to get Infosec updates. UCINET 6/NetDraw were used to visualize the Degree (numbers), Closeness (colours), and Betweenness (shapes) measures. Kruskal-Wallis on PSPP 1.6.2 was performed to identify relationships between the demographics and the selected nodes.

3. Results

A percentage of 82.3% selected only one node while 17.7% selected more than one nodes. There is no statistically significant difference between the actors selected to share Infosec updates and the demographics of nurses (Gender CI=95% p=0.545<0.05, Age CI=95% p=0.980<0.05, Employment length CI=95% p=0.720<0.05).

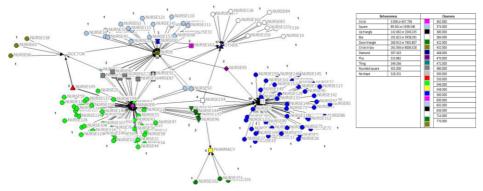[1]Corresponding Author: Andriana Magdalinou, University of Athens, Greece; E-mail: alfami@nurs.uoa.

Figure 1. Infosec Social Networks (Q1).

4. Discussion

Staff does not have clear directions on who to consult for Infosec issues as their selections were polarized. A lack of formal Infosec roles was reported in other studies [4]. Clear roles should be defined and communicated to the staff. Since, a number of nurses trust their peers for Infosec updates; we propose that nursing link roles [5] could be expanded to include an informatics nurse link role.

5. Conclusions

Nurses, regardless of their demographics, trust line managers, nursing colleagues and IT professionals for Infosec updates. Future studies could involve other actors and recruit a larger sample of nurses.

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