Pharmaceutical care plan: Accuracy of self-assessment among Nurse Students

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Abstract:

Pharmaceutical care plan was adopted in the previous decades to improve patient management; it depends on monitoring and reassessment for that the care provider should be able to assess his care. Aim: To investigate the accuracy of self-assessment for knowledge among students who sit to achieve master's degree of nurse college at Alneelain University

Material &method: cross sectional study we examined 43 nurse by short structured assay cover the most important pharmaceutical aspects (diagnose, goal, intervention, monitor, and patient education) then students were given a model answer to mark them-selves, the papers were redistributed to their class mate to assess them and finally they were assessed by their faculty. The date was managed by Microsoft excel sheet and statistical package program for social science version 24.

Result: A total of 43 nurses achieved mean of 50 ± 8 in the test, according to self and peer assessment guidance they gave them-selves marks within a mean of 53 ± 24.They marked their peer at average of 56 ± 18. The student and their peer (43%, 45%) respectively under assessed themselves & their colleague. Those who achieved well overestimated themselves while those who achieved bad underestimated themselves.

Conclusion: our students have a defect in assessing themselves and their peer.
Recommendation: implant self-assessment curriculum to train student and faculty for accurate self-assessment.

Key word: pharmaceutical care plan, self-assessment, peer-assessment- self-esteem.

Background:

Pharmaceutical care plan is a course of 90 min implanted in the curriculum of Alneelain nurse college master student since 2015. It was developed to address the subjective objective assessment plan (clear nurse diagnose, smart goals, specific interventions, monitoring, reassessment, and patient education). This course was formulated as

problem based learning preparing the students to deal with real problems. [1] The nurse is the direct person who administrates the drug to the patient; they should be able to know that they are delivering the medication to their patient in a proper way. Perfect monitoring and self-assessment will help them to achieve standard drug manipulation.

Self-assessment is a process of formative assessment includes judging, monitoring, regulation of self-learning.[2,3] It is based on the metacognitive theory [4] is a cornerstone in adult learning process to identify self's weakness and strength on acquiring knowledge[5].although this promote learning but is it fair to depend on students on their assessment that was explored by educator- researcher . for example: a longitudinal study was conducted on 2003 among 168 students finding that self-assessment is a permanent personal Attribute rather than time changeable one. [6] letter on, Vicki Langendyk who examined 175 third year medical students by short assay case and asked them to marking their self and peer followed by faculty marking ; he found that higher achiever students underestimate themselves and accurately assess their peer while low ones overestimated their self and peer. [7]Then Zubin and his mate followed their students, self-assessment which was not matched to their peer and teacher.[8]similar study was done by Madeleine's team but they add to that the students, belief which did not correlate to their assessment.[9] recently the researches move towered qualitative style to gather more information about this method. one of them was Joan Sargeant and his colleague who interviewed and observed different students and their teacher exploring the factors that may interfere with the process[10] when Lois's group reported 3 cases to highlight obstacles discussing the reliability , validity and accuracy of self -assessment rising the need for understanding self-assessment.[11]They recommended some cautions to be obtained in self-assessment in this study they were considered. The questionability about the accuracy of self-assessment make it more applicable as curriculum method than assessment one.[12]

Methodology:

On 2018 we conducted study to investigate the accuracy of self-assessment by using faculty and peer assessment as a stander at the end of course short structured assay to solve case problem addressing the nurse diagnose, goals, interventions, monitoring and counselling distributed to 43 students who attend the course after 30 min a marking criteria answer sheet. The model answer was developed by their collaboration given to them. Then they were asked to judge about their work then the papers were shifted to their peer to mark them. Final, they were assessed by their teacher. The obtained data were collected in Microsoft excel sheet and difference between their self, peer and

faculty mark were calculated, then we examined the relation between this difference and their performance by social statistical package for science version 24.

Result:

Within 43 nurses who were female predominantly with only 5 were males, they joined master program and taught a course of pharmaceutical care plan, and we compared their self-assessment with their peer &teacher. The score which was given by the teacher was represented by a mean of 50 ± 8, the peers were marking their colleague with an average of 56 ± 18, the student give themselves marks distributed around a mean of 53±24 (figure 1,2, and 3). The student and their peer (43%, and 45%) respectively under assess themselves & their colleague in comparison with their tutor although 50% of the student gave themselves the similar mark that was given by their classmate. (Figure 4, 5, and 6). Significantly, Student who over estimate them-selves do fine in the exam there was moderate correlation between their assessment and their performance, and strongly agreed with their peer in their marks   while poor achiever under assess them -selves but the correlation was week, although they moderately agree with their classmates   (Table 1, and 2).The students mark themselves better than marking their colleagues. (Table 3) correlation -.023
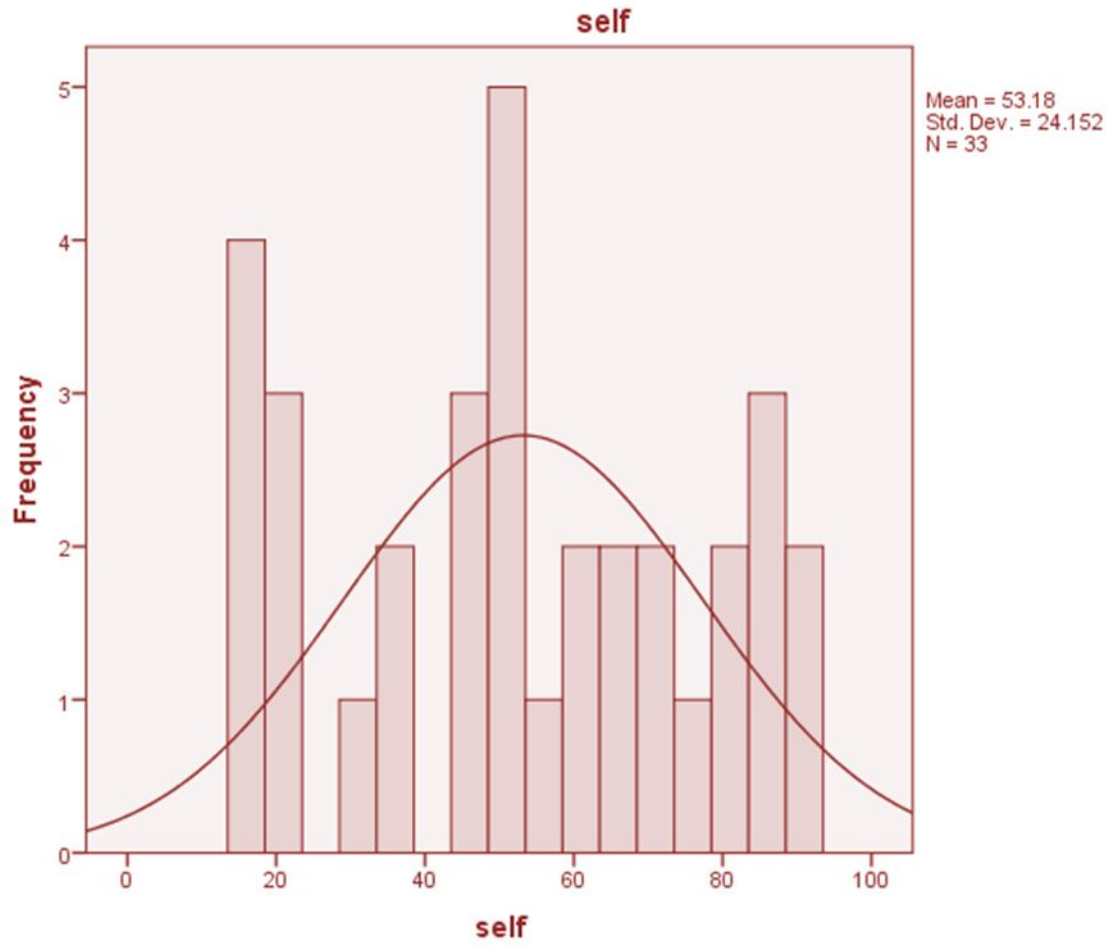
Significant.885

Figure 1: scores which was given to the student by them selves
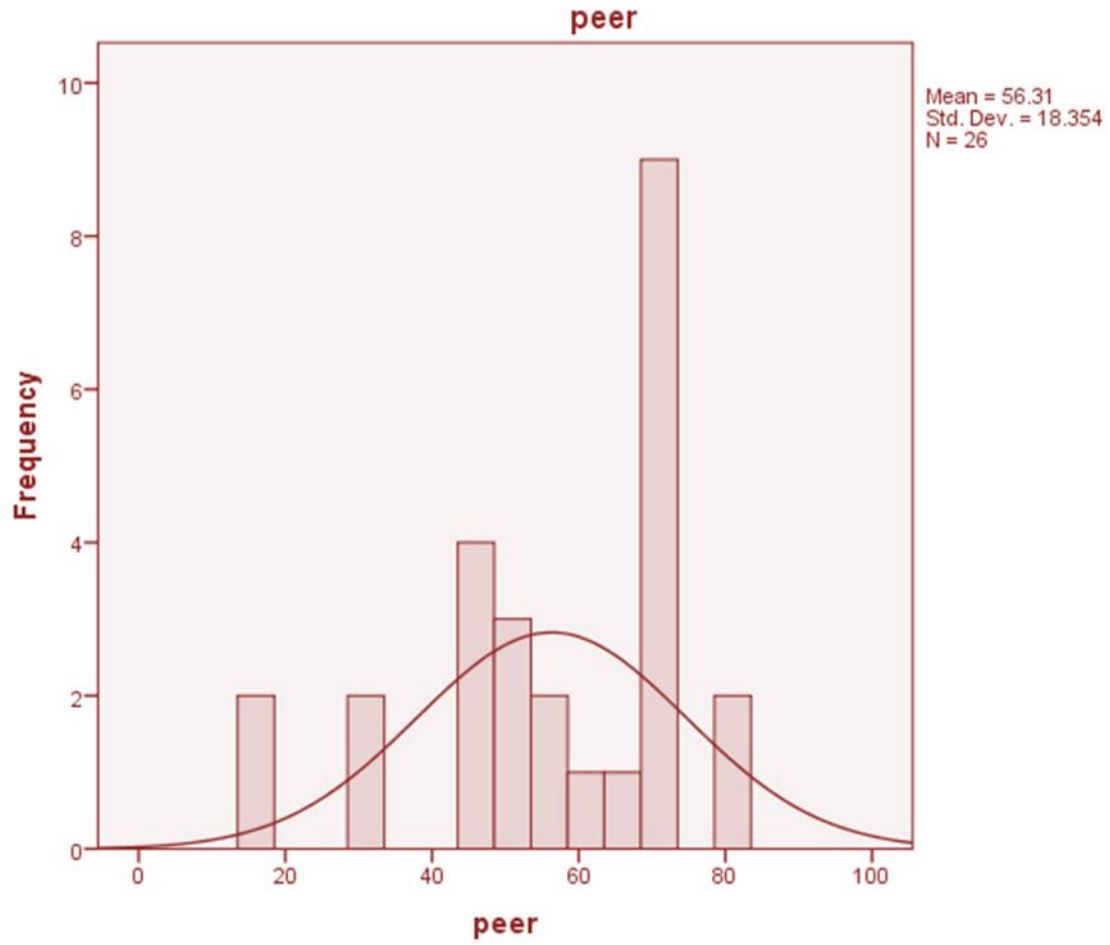
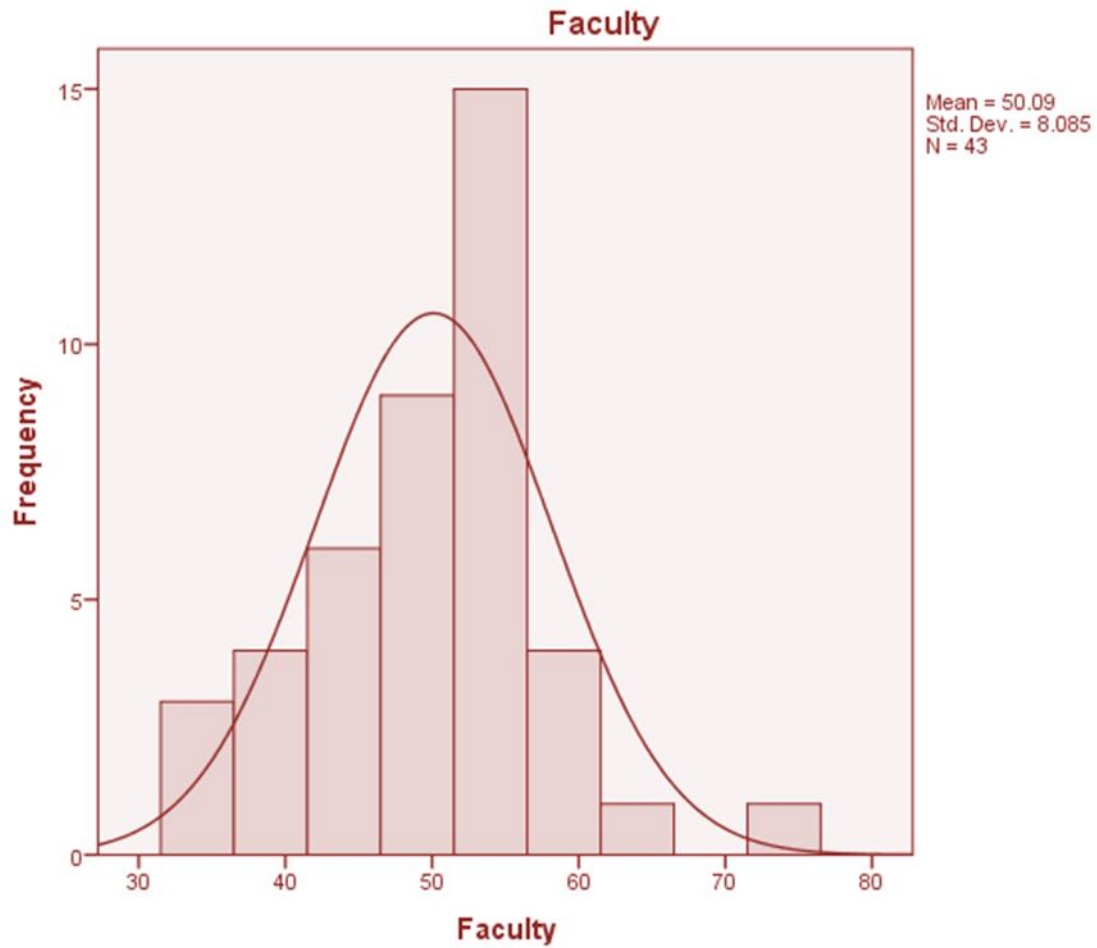Figure2: scores that was given to the students by their peer

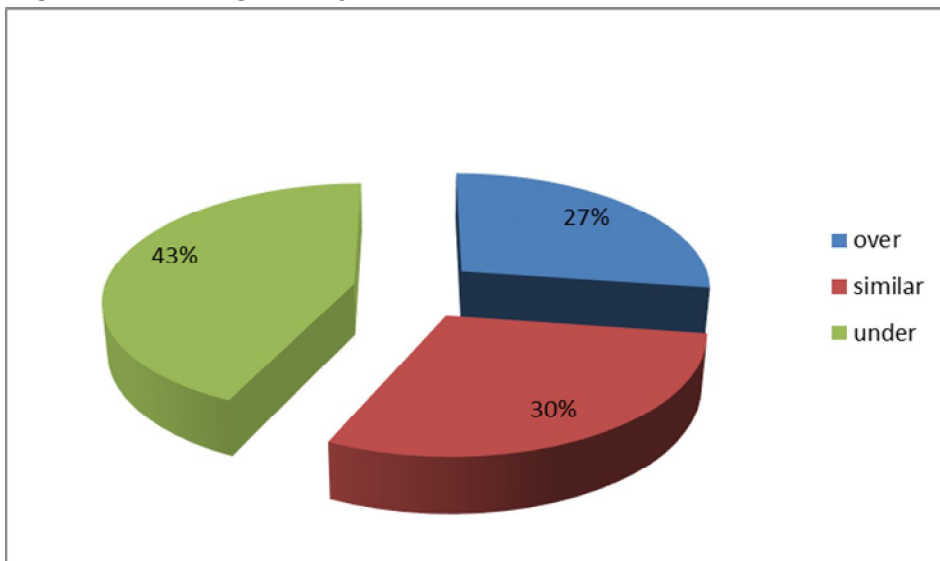Figure 3: scores given by the teacher to the students

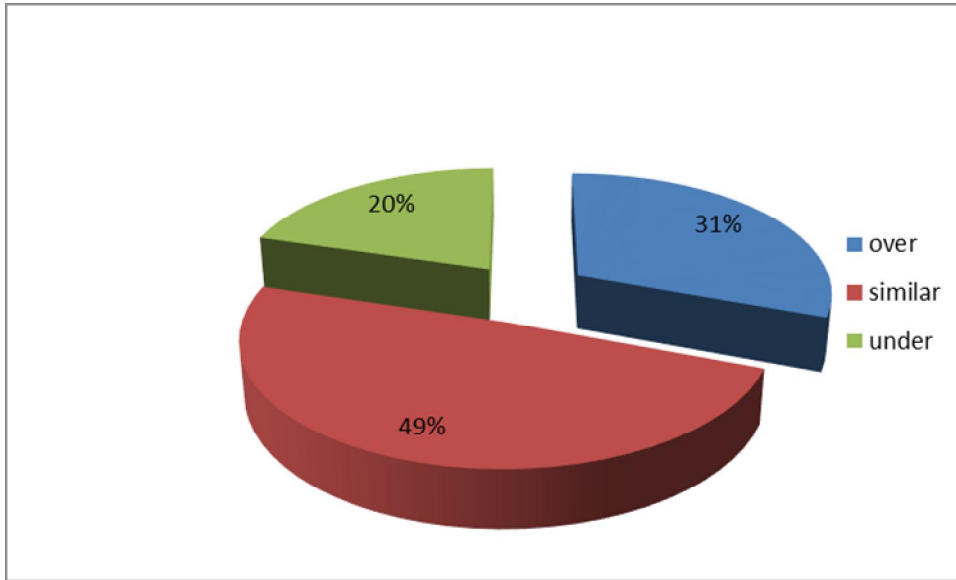Figure 4:   compares self-assessment with teacher assessment.

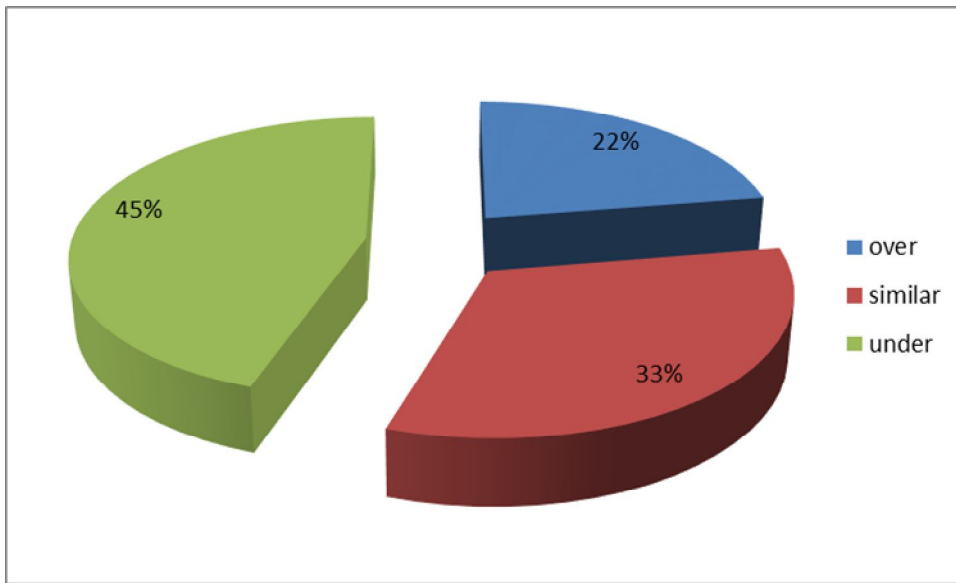Figure 5: compares self-assessment with peer-assessment.

Figure6: compares peer-assessment with teacher

Table 1: compare self -assessment with teacher assessment in relation to performance

Good performance			Poor performance		
	Frequency	percentage		Frequency	Percentage
Over-estimate	9	39.1	Over estimate	3	15
Under estimate	8	34.8	Under estimate	10	50
Similar estimate	6	26.1	Similar estimate	7	35
total	23	100	total	20	100

Table 2: compare self -assessment with peer assessment in relation to performance

Good performance			Poor performance		
	Frequency	**Percentage**		Frequency	Percentage
Over estimate	9	39.1	Over estimate	6	30
Under estimate	4	17.4	Under estimate	6	30
Similar estimate	10	34.5	Similar estimate	8	40
total	20	100	Total	20	100

Table 3: compare peer-assessment for them-selves and their colleague.

	Mean
Peer – self-assessment	11.81
Peer- colleague assessment	-6.7

Discussion: Learning process trends to be student centred for that the students should be able to judge & monitor their achievements. While nurses are the direct personnel who deliver the treatment to patients, they need to plan for perfect pharmaceutical care. This care needs monitoring and reassessment. In this study we test the ability of self-assessment among our students we found that they trend to under estimate their knowledge. This reflect less competence which need more direction. To be more directed the student self-assessment was compared by their teacher and peer in relation to their performance, our findings were different from the majority of other similar

studies. Those who did well on their test marking themselves higher than their tutor while poor performant under ranking their works.   The majority of the previous studies found that good performant underestimated themselves and poor performant grade them-selves munificently. the behaviour of the students explained by the phenomena of trending toward the mean while the student in this study increasing the stander deviation bringing up this question do our student know how to assess themselves and the need for self-assessment curriculum.[13] training the student to assess themselves help them and make self-assessment more valid , another way to strength self-assessment validity is to compare it with peer assessment in our study the majority of the students gave their peer marks less than what was given by the teacher .Other studies show more accuracy in peer-assessment. [13,14] Students were assessing themselves more kindly than assessing their peer this may be because they standardize the work in comparison to their work its personality tendency to be above average. [15]This lift us with dilemma about considering self-assessment and peer-assessment as assessment methods, there is difficulty to achieve validity and reliability on them. But with more preparation and training we can improve their accuracy. This may help in promoting student learning. [12] In this study students were rate themselves by directed skill but to get benefit it's better for the subsequent researches   to be directed toward the swot (Strength , weakness, opportunistic, Threaten) analysis. [6]Finally, our study was baseline survey to get idea about the situation before preparing for more work to implant self &peer assessment in the curriculum.

At the end of this research, our students were quite differing in the manner of their self-assessment while good performance were overconfidence the poorer had a low self-esteem, more than that our students assessed their peer very harshly. This situation emerges the need for further training and more preparations before starting to apply this process in our curriculum.

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