

*Original Research Article*

## Kaabba- 3 Cycles Medical Consultation Model

Abdulaziz Fahad ALkaabba

Abstract

Professor of Family Medicine and Bioethics, Imam Mohammad Ibn Saud Islamic University (IMISU), College of Medicine, Family Medicine Department

E-mail: [afkaabba@gmail.com](mailto:afkaabba@gmail.com)

**Clinical teaching for medical students and residents has always used assisting tools and methods to facilitate the understanding and the memorizing the most significant clinical skills. This study aims to introduce and assess a new clinical consultation model, Al-Kaabba 3 Cycle Consultation Model, or AlKaabba 3-cycles in medical practice. A cross-sectional questionnaire-based study was conducted and included ninety-seven medical students at Imam Mohammad Ibn Saud Islamic University (IMISU) were trained using this model. Sixty-six were males while thirty-one were females. SPSS -version 21-was used to analyze the collected data. The vast majority of enrolled students (94; 96.9%) strongly agree that AlKaabba 3-cycles helped them take the patient's relevant information and felt comfortable using it during their training. Almost all of them agree (96; 99%) that AlKaabba 3-cycles helped them taking the patient's medical history and examination confidently and recommended it to be taught and practiced regularly. Developing and practicing in-house-made teaching tools have good outcomes and help medical students learn and practice. There is a need for further research on the 3-cycles and to encourage more locally developed similar tools.**

**Keywords:** Consultations Model, 3cycles, Alkaabba, Medical Students

### INTRODUCTION

As we know In its simplest form, medical consultation is "a two-way encounter between a doctor or a practitioner and a patient" (Pawlikowska et al., 2007). Medical consultation modules were and still an important part of physicians' development. The traditional apprenticeship method of training medical students to take their patients' medical histories often fails to teach them sufficient interviewing skills to obtain a full and accurate account of their patients' problems (Maguire and Rutter, 1976). Consultation models provide a potential structure for the complex interactions that occur between patients and doctors.

Conducting a medical consultation in practice is one of the elements of good medical care. Also, it represents a core competence of the medical profession. State-of-the-art physician-patient consultation includes more than solving a medical problem (Maguire and Rutter, 1976). It

also aims to improving the well-being of every patient in his/her own context, which is often labeled as a "patient-centered" consult (Sørensen et al., 2015). Medical doctors need a larger scope of capacities to improve understanding, strengthen autonomy, and support self-management of their patients during medical consultations (Ali et al., 2014).

Consultation theory contains a wealth of useful suggestions, but it can seem overwhelming to the novice. Moreover, there have been a wealth of consultation models. For instance, Pawlikowska (2007) has listed more than 10 consultation models, dated as old as 1948 by Wiener (Pawlikowska et al., 2007). Whereas all consultation models include the taking of a (medical) history, they present a difference in focus upon various aspects of the consultation, someplace more emphasis on diagnosis of the patient while others focus more on

discovering what the actual patient ('consumer') wants. (Ranjan et al., 2015).

The Rule of Third describes a consistent consultation scaffold, which aids the teaching of respected consultation models and facilitates the formation of individual consultation style. It is useful for medical students and trainees (Grundy, 2018).

At first glance, consultation models, some of which were derived decades ago, may seem irrelevant to modern general practice. Effective communication with patients also improves outcomes, both for patients and doctors (Denness, 2013). Consultation models provide a potential structure for the complex interactions that occur between patients and doctors. They continue to help doctors process the vast amount of verbal and non-verbal information that is conveyed to them in the course of a consultation and help them to achieve the complex tasks associated with being a GP. They may also help GPs to communicate more effectively with their patients, which in turn can improve their job satisfaction, patient satisfaction, and patient outcomes. They can help GPs to understand where their consultations are going wrong and may help them find ways to correct this problem.

Despite the abundance of consultation models, they are barely devoted to or covers every eventuality of primary care. If consultation models are used, they should not be followed rigidly, but adapted to one's innate consulting skills and personality traits, allowing our natural warmth and empathy to show through. It is important to understand the more common consultation models in use, and also understand their ability for use to serve not only the service provision but also medical education (Ranjan et al., 2015).

Good consultation skills are essential for effective patient satisfaction, and it has been shown to drive positive outcomes for enhancing patient health. An emphasis was given by the British Medical Association (BMA) and the General Medical Council (GMC) indicating the importance for the quality of the physician's professional work to be assessed at regular intervals, by patients and colleagues (GMC, 2006). By communicating more effectively in medical consultations, medical doctors contribute to improved understanding, adherence to medical treatment, improved health and (further) prevention of health problems (Cooper et al., 2011).

There has been a growing interest in studying and assessing clinical consultation models. For example, in ER, the *5Cs of Consultation* model (Contact, Communicate, Core Question, Collaborate, and Close the Loop) has been studied in Emergency Medicine residents using simulated consultation scenarios. The study results showed an improvement in consultation using a 12-point 5Cs checklist model, with no improvement as measured by a GRS. Medical educators can consider incorporating the 5Cs model into the curriculum for improving the quality of students' consultations in the ED and in other clinical settings (Kessler et al., 2015).

As we know in medical practice, we have many medical schools. Also, we have many international medical consultations models as Balint, Berne, Byrne, Helman, pendelton. we are applying them in our medical consultations. From our practices we think about new practical easy consultation model. Also, up to our knowledge this is the first Arabic consultation medical model in practice. In this article, we will present a novel clinical consultation module, AlKaabba three-cycle consultation model, and assess that students' satisfaction when they used it practically for taking history and physical examination.

Students receiving the professional development training showed significant improvements in certain communication skills. Students in the early years of their medical course may benefit from further opportunities to practice basic communication skills on a one-to-one basis with patients (Joekes et al., 2011). So communication skills are one of the most important parts of the clinical consultation skills for our physicians. Conducting a medical consultation is a key element of good medical care. As we are aware that there are many consultations model, yet some of these seem to be difficult for medical students.

Given the limited literature and similar models that were developed in the Saudi context, this study introduces an in-house developed novel clinical consultation model (Alkaabba 3 cycle consultation model), which was applied practically by the medical students of IMISU. This study aims to assess the new clinical consultation Model (kaabba 3 cycle consultation model).

The outcome of this study is to have a new simple practical clinical consultation module for medical students and residents in clinical settings. It is intended to be a simple practical clinical consultation module to be assessed after being used by medical students in their final year. Communication with patients is key to clinical practice. It is known that effective communication with patients also improves outcomes.

## MATERIAL AND METHODS

The study aimed to introduce and assess the new clinical consultation Model (Alkaabba 3 cycle consultation model). This new model will help the medical students in recalling and practicing taking history and physical examination practically. The 3-cycles can be summarized as follows (Figure 3):

### A-Related to taking history cycles

Before you start, you should introduce yourself nicely to the patient with nice smile and also it is important to call him by his or her name. At the end of your consultation, you should thank the patient in a nice way.

**Table 1.** Demographic features of respondents (N= 97)

		Frequency	Percent
Age	20-24		
	25-29	13	13.4
	30 or More	3	3.1
Academic year	5	34	35.1
	6	63	64.9
Sex	Female	31	32.0
	Male	66	68.0
Current semester at the college	6.0	1	1.0
	8.0	1	1.0
	9.0	8	8.2
	10.0	7	7.2
	11.0	63	64.9
	12.0	17	17.5
Time AIKaabba 3-cycles was taught	1-2 years ago	8	8.2
	Being currently studied	64	65.9
	Less than 6 months ago	26	26.8

Then start the 3 kaabba 3 cycles as:

- Check the patient's chief complaint meticulously.
- Take history for related system related to his chief complaint.
- The third cycle is to complete another history "medical-surgical – allergy – drug – social" family.

### B- Physical examination cycles

- Examine the patient generally, i.e. before you touch the patient and when you touch the patient for general examination from (head to toe).
- Examine the specific system related to the problem: inspection, palpation, perception, and auscultation.
- Examine other related systems of the body.

The study is a cross-sectional, questionnaire-based study. This study was conducted in a selective 6 samples group of 114 medical students, both female, and male. They were selected randomly from two final years groups (2019-2020) of medical college, Imam Mohammad Ibn Saud Islamic University (IMISU).

A validated online questionnaire was given and distributed to a sample of 114 medical students, who were all taught how to use this model and applied it in their clerkship. Ninety-seven medical students, 66 were males while 31 were females' medical students filled in the questionnaire at that time. Given that medicine is taught in English, so the questionnaire was developed and validated in English. 3 Cycles for History Taking and Clinical Examination -<https://docs.google.com/forms/d/1kN5LmTSq7KgujP2ckVTJ0Q5yCJpQNsNv1EUcM6PXvGg/edit?usp=sharing>.

Statistical Package for Social Sciences (SPSS), version 21, was used for the analysis and data entry. Data were summarized as percentages and frequencies.

IRB approval-NO-92-2021 was obtained from the Medical Research Unit, College of Medicine, Al-Imam Muhammad Ibn Saud Islamic University, Riyadh, Saudi Arabia. The online questionnaire was anonymous and informed consent was sought and given by each participant.

## RESULTS

Ninety-seven students have filled out the online questionnaire out of the 114 invited students with a response rate of 85%. Most of the respondents were males (66; 68.0%), aged 20-24 years old (81; 83.5%), and in their 6<sup>th</sup> year of medical college (63; 64.9%). Table 1 summarizes the main characteristics of the students who responded.

### Students' opinions of AIKaabba 3-cycles

Most of the students said they would recommend using AIKaabba 3-cycles (42; 43.3%), one-quarter of them would advise their colleagues to use it (25; 25.8%) and (17; 17.5%) found a positive change in their clinical skills practice. In contrast, only 10 students (10.3%) said that AIKaabba 3-cycles did not change their practice.

Figure 1 and Table 2 summarize the respondents' views about AIKaabba 3-cycles. 94 students (96.9%) strongly agree that AIKaabba 3-cycles helped them in

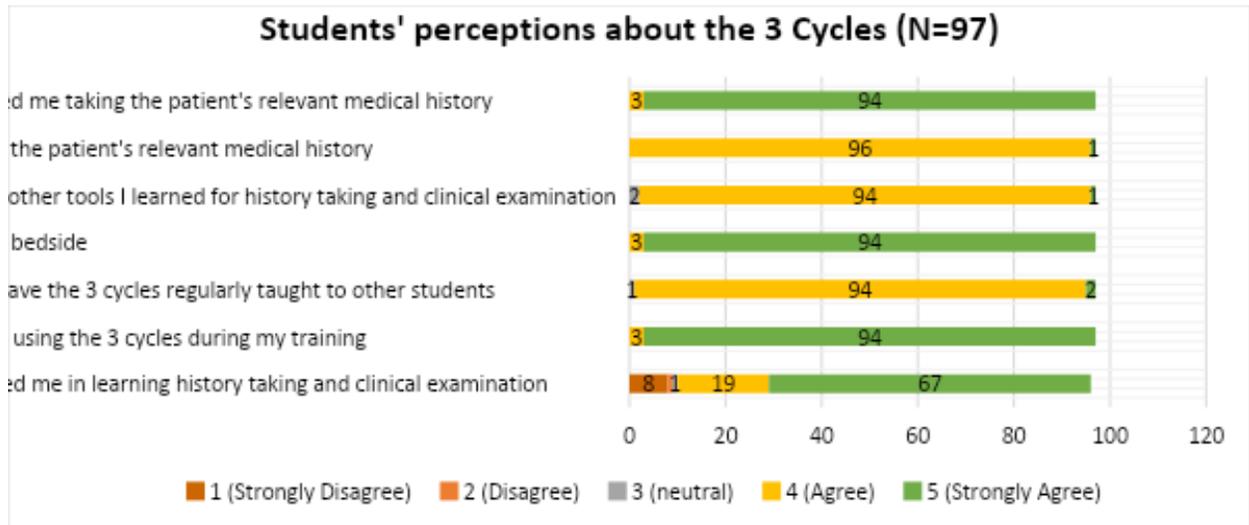
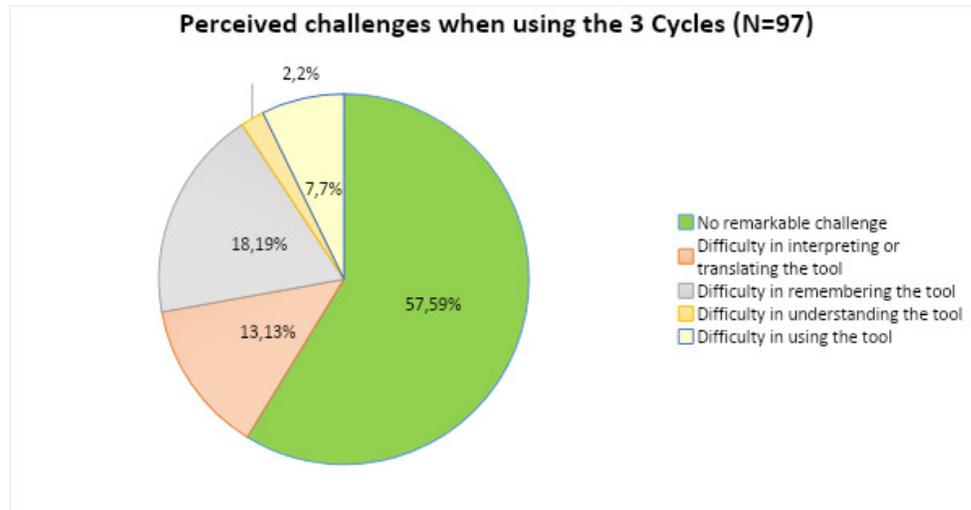


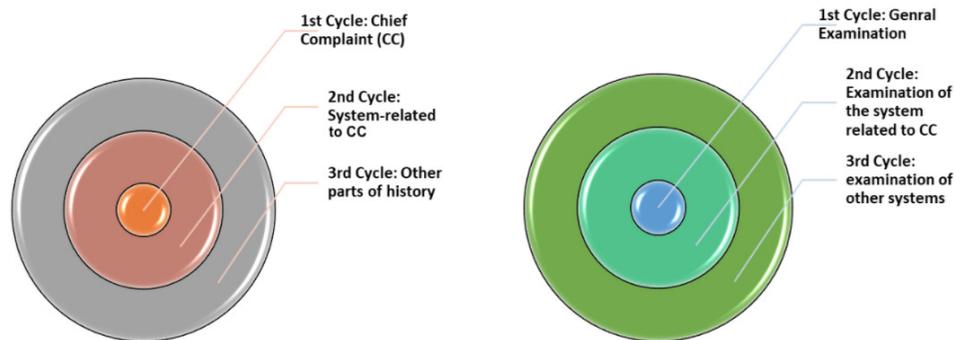
Figure 1. Students' perceptions about AIKaabba 3-cycles (N=97)

Table 2. Participants' views about AIKaabba 3-cycles

Participants' views about AIKaabba 3-cycles approach	1 (Strongly Disagree)		2 (Disagree)		3 (neutral)		4 (Agree)		5 (Strongly Agree)	
	No.	%	No.	%	No.	%	No.	%	No.	%
Helped in learning history taking and clinical examination	8	8.2	1	1	1	1	19	19.6	67	69.1
I feel comfortable using AIKaabba 3-cycles during my training	0	0	0	0	0	0	3	3.1	94	96.9
I recommend having AIKaabba 3-cycles regularly taught to other students	0	0	0	0	1	1	94	96.9	2	2.1
Easy to use at the bedside	0	0	0	0	0	0	3	3.1	94	96.9
More useful than other tools I learned for history taking and clinical examination	0	0	0	0	2	2.1	94	96.9	1	1
Helped me taking the patient's relevant medical history	0	0	0	0	0	0	96	98.9	1	1
AIKaabba 3-cycles helped me taking the patient's relevant medical history	0	0	0	0	0	0	3	3.1	94	96.9



**Figure 2.** Perceived challenges when using the 3 Cycles (N=97)



**Figure 3.** Schematic representation of Alkaabba 3-Cycles

taking the patient's relevant information and they felt comfortable using it during their training, while almost all of them agree that the 3 cycles helped them taking the patient's medical history and recommend it to be taught regularly (96; 98.9%, and 94; 96.9%), respectively. Nine students (9.2%) either disagree or strongly disagree AlKaabba 3-cycles helped them in learning about history taking and clinical examination.

### Challenges while learning and practicing AlKaabba 3-cycles

More than half of the respondents expressed that they did not face any remarkable challenge (57; 58.8%), while the difficulties in interpreting or translating the tool and in remembering it was expressed by 13 (13.4%) and 18 (18.6%), respectively (Figure 2).

## DISCUSSION

The study aimed to introduce and assess the new clinical

consultation Module (Alkaabba 3 cycle consultation module). This new model will help the medical students in recalling and practicing taking history and physical examination practically. The 3-cycles can be summarized as follows (Figure 3).

### A-Related to taking history cycles

- Check the patient's chief complaint meticulously.
- Take history for related system related to his chief complaint.
- The third cycle is to complete another history "medical-surgical – allergy – drug – social" family.

### B- Physical examination cycles

- Examine the patient generally, i.e. before you touch the patient and when you touch the patient for general examination from (head to toe)
- Examine the specific system related to the problem: inspection, palpation, perception, and auscultation.

- Examine other related systems of the body.

Conducting a medical consultation is a key element of good medical care. As we are aware that there are many consultation modules, yet some of these seem to be difficult for medical students. Partly, this can be attributed to the fact that they may seem complicated or disorganized. Moreover, they sometimes lack local/national applicability (Jackson and Hayes, 1993).

In this study, most of the students said they would recommend using AlKaabba 3-cycles (42; 43.3%), one-quarter of them would advise their colleagues to use it practically. Moreover, 25 (25.8%) and 17 (17.5%) found a positive change in their clinical skills knowledge and practice, respectively. In contrast, only 10 students (10.3%) said that AlKaabba 3-cycles did not change their practice.

Generally, the satisfaction with the cycles was considerable were 94 (96.9%) strongly agreed that AlKaabba 3-cycles helped them in taking the patient's relevant information and felt comfortable using it during their training. This percentage is significantly higher than other studies that were conducted elsewhere (Denness, 2013; Jackson and Hayes, 1993; Sayed-Hassan et al., 2012; Leach et al., 2007; Bickley and Szilagyi, 2017) while almost all of them agree that the 3 cycles helped them taking the patient's medical history and recommend it to be taught regularly (96; 98.9%, and 94; 96.9%), respectively). AlKaabba 3-cycles helped them in learning about history taking and clinical examination.

The outcome of this study was satisfactory, as the result can guide future clinical teaching and training to have a new simple practical clinical consultation model for medical students and doctors in the health field. The literature has shown that many medical modules seem to be difficult for medical students and residents, so many of them didn't complete their patients' medical history in real practice (Han et al., 2005; Al-Khaldi et al., 2016; Kessler et al., 2012). When we compare this model with other modules we found it new and more easy and more practical. Also, many of consultations modules were old.

This simple practical clinical consultation model was assessed practically and discussed with expert people in the health field practically in the clinical skills lab. Communication with patients is key to clinical practice. We strongly support using this simple practical clinical consultation module in practice.

### Limitations of the study

We did this practical consultation model for undergraduate medical students. The study needs to be also done for postgraduate and in many medical centers.

### Funding Statement

There was no Funding for this research. And there was no conflict of interest for the author of this research.

### CONCLUSION

Medical consultation is a key element of good medical care. This study aimed to introduce and assess the new clinical consultation Model (AlKaabba 3 cycle consultation model) practically. Most of the students who shared in this study said they would recommend using AlKaabba 3-cycles and would advise their colleagues to use it practically. Overall, there was a significant acceptance of the model and the feedback about its practicality was overwhelmingly welcoming and encouraging. More efforts need to be done in the line of in-house developed clinical consultation models that address the specific needs of the patients and the students/residents. Also, we recommend more research it be done when the model is taught regularly and practiced in the health field over time.

### REFERENCES

- Ali NK, RP Ferguson, S. Mitha, A. Hanlon (2014). "Do medical trainees feel confident communicating with low health literacy patients?," *J. community Hosp. Intern. Med. Perspect.*, vol. 4, no. 2, p. 22893
- Al-Khaldi YM, K. M. AlDawood, B. K. AlKhudeer, and A. A. AlSaqqaf (2016). "Satisfaction of trainees of Saudi Diploma Family Medicine, Saudi Arabia," *Educ. Prim. Care*, vol. 27, no. 5, pp. 1–3, Aug. DOI: 10.1080/14739879.2016.1219619.
- Bates' Guide to Physical Examination and History Taking," in *Wolters Kluwer*
- Cooper LA, et al., (2011). "A randomized trial to improve patient-centered care and hypertension control in underserved primary care patients," *J. Gen. Intern. Med.*, vol. 26, no. 11, pp. 1297–1304
- Denness C (2013). "What are consultation models for?," *InnovAit*, vol. 6, no. 9, pp. 592–599, Sep. doi: 10.1177/1755738013475436.
- GMC (2006). "The duties of a doctor registered with the General Medical Council," *Practice*, vol. 327, no. 7425, p. 52
- Grundy J (2018). "The Rule of Thirds: a consultation scaffold for medical students and trainees," *Educ. Prim. Care*, vol. 29, no. 5, pp. 293–295
- Han P.KJ, LB. Keranen, DA Lescisin, RM Arnold (2005). "The Palliative Care Clinical Evaluation Exercise (CEX): An experience-based intervention for teaching end-of-life communication skills," *Acad. Med.*, vol. 80, no. 7, pp. 669–676, DOI: 10.1097/00001888-200507000-00009.
- Jackson DN, DH Hayes (1993). "Multicultural Issues in Consultation," *J. Couns. Dev.*, vol. 72, no. 2, pp. 144–147, Nov. DOI: 10.1002/j.1556-6676.1993.tb00913.x.
- Joekes K, Noble LM, AM Kubacki, H. W. W. Potts, M. Lloyd (2011). "Does the inclusion of professional development teaching improve medical students' communication skills?," *BMC Med. Educ.*, vol. 11, no. 1, pp. 1–8
- Kessler CS, et al. (2015). "The 5Cs of consultation: training medical students to communicate effectively in the emergency

department," *J. Emerg. Med.*, vol. 49, no. 5, pp. 713–721

Kessler CS, Y. Afshar, G. Sardar, R. Yudkowsky, F. Ankle, and A.

Schwartz (2012). "A Prospective, Randomized, Controlled Study Demonstrating a Novel, Effective Model of Transfer of Care between Physicians: The 5 Cs of Consultation," *Wiley Online Libr.*, vol. 19, no. 8, pp. 968–974, Aug. DOI: 10.1111/j.1553-2712.2012.01412.x.

Maguire GP, DR Rutter (1976). "History-taking for medical students: I—Deficiencies in performance," *Lancet*, vol. 308, no. 7985, pp. 556–558.

Pawlikowska T, J. Leach, S. Ldr, P. Lavallee, R. Charlton, and J. Piercy (2007). "Consultation models," in *bradfordvts.co.uk*,.

Ranjan P. A. Kumari, A. Chakravarty (2015). "How can doctors improve their communication skills?," *J. Clin. diagnostic Res. JCDR*, vol. 9, no. 3, p. JE01

Sayed-Hassan RM, Bashour HN, A. Y. Koudsi (2012). "Patient attitudes towards medical students at Damascus University teaching hospitals," *BMC Med. Educ.*, vol. 12, no. 1, p. 13, DOI: 10.1186/1472-6920-12-13.

T. Pawlikowska, Leach J, PLL. to, undefined (2007). "What are consultation models for?" *bradfordvts.co.uk*, vol. 6, no. 9, pp. 592–599, Sep. 2013, DOI: 10.1177/1755738013475436.

Sørensen K, *et al.* (2015). "Health literacy in Europe: comparative results of the European health literacy survey (HLS-EU)," *Eur. J. Public Health*, vol. 25, no. 6, pp. 1053–1058