

The Artificial Insemination Pregnancy Program as a Type of Service and Level of Efficiency of Health Services

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Abstract: The purpose of this study is to look at the artificial insemination pregnancy program service as one of the services at Mutiara Bunda Mother and Child Hospital. In this context, it will also look at the perspective of its management efficiency. The pregnancy program with this method involves the age of female and male patients, endometrial thickness (EMT), post-washing total motile sperm count (PTMC), artificial insemination time, insemination frequency, and ovarian stimulation protocol which are compared between the pregnant group and the non-pregnant group to see any correlation. Then, hospital efficiency reflects the ratio of the value of health services provided, both quantity and quality of care to the resources used in health services. This study was conducted at Mutiara Bunda Mother and Child Hospital Padang. The results of the study state that procedurally and institutionally, the pregnancy program service with artificial insemination at RSIA Mutiara Bunda Padang is very good. Specialist doctors and other paramedics are well qualified to implement this service program. The Director of the Mother and Child Hospital includes effective leadership because the performance of staff or officers at the Mother and Child Hospital has worked well, with the motivation provided by the leadership. The hospital has adequate specialist doctors, both in terms of number and type of specialization in accordance with hospital specifications, namely Obgyn and Pediatric specialists. The artificial Insemination Pregnancy Program as a type of service is the first in Padang.

Keywords: Artificial; Health; Insemination; Level of Efficiency; Pregnancy Program

Introduction

Mutiara Bunda maternity hospital in Padang city is trying to provide a variety of services that are increasingly complete. One of them is by providing pregnancy program services with artificial insemination methods (Wikler & Wikler, 1991). This program is definitely with a scientific approach carried out by qualified specialists owned by this hospital.

RSIA Mutiara Bunda Padang is ready to serve infertility patients. This is with the Indonesian Fertility Clinic facility. The clinic is equipped with laboratory facilities, action room, men's room and waiting room (Der et al., 2022). President Director of RSIA Mutiara Bunda Padang, Dr. Triwijayanto, MARS, said the insemination clinic is intended to help couples who have difficulty in having offspring (Barus, 2023). It needs

proper preparation in order to achieve good targets. It needs a technique, special skills, so that the success rate (insemination) is high. Appreciation for the Board of Directors who have realized this clinic, continued Triwijayanto, hopefully everything will run smoothly and succeed well. Actually, this program is a choice of services, because RSIA Mutiara Bunda Padang became a Morula partner because RSIA Mutiara Bunda is the leading hospital in Padang City. Moreover, it focuses on mothers and children (Besse et al., 2020).

The purpose of opening a fertility clinic at RSIA Mutiara Bunda Padang, he continued, was to facilitate access for couples who were "less fortunate". Based on historical statistical data, 10 - 15% of couples experience infertility in both cities and districts in Indonesia (Harzif et al., 2019; Mackay et al., 2023). These couples get fertility services by going to Jakarta or abroad.

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Currently, there are many fertility clinics that work with Morula throughout Indonesia. Even spread across Sumatra, Java, Kalimantan, Sulawesi, Bali and Lombok. The most important thing is how this service is standardized so that the outcome can be accounted for Morula Indonesia continues to support Mutiara Bunda Padang Hospital in terms of the competence of doctors, nurses and laboratory personnel, as well as in terms of publications.

This service supports various efforts to improve human welfare. Not only economic and labor problems, but also the problem of having offspring. Efficiency and professionalism are needed to support the innovations made by Mutiara Bunda Padang Hospital. Therefore, this RSIA must be managed professionally and efficiently, so that the program can run sustainably.

Method

The research approach used in this study is a qualitative research approach with a case study report model (Sugihara et al., 2020). This research was conducted at Mother and Child Hospital Mutiara Bunda Padang. This research was carried out in two stages, namely the first stage was research on the level of efficiency through indicators (BOR, ALOS/AvLOS, BTO, and TOI). Furthermore, the second stage is to find out whether effective leadership, organizational culture, involvement of doctors and staff skills are determinants of efficiency at Mutiara Bunda Mother and Child Hospital.

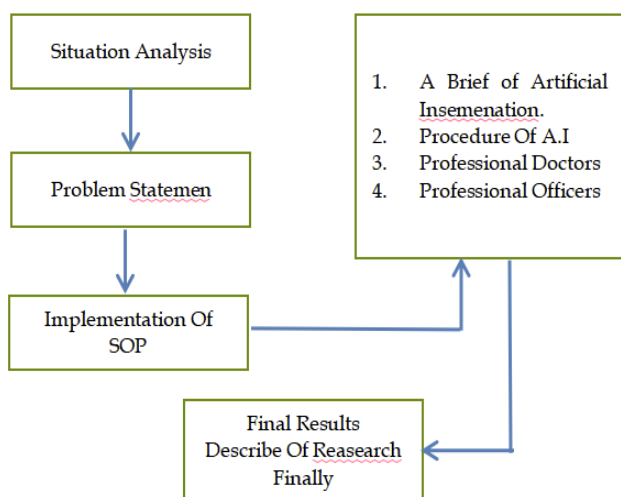


Figure 1. Framework and Flow of Method

In this study the determination of informants was carried out by snowball sampling technique (Sobotka et al., 2020). The sampling technique is with the help of the key informant, and it is from this key informant that it will develop according to the instructions. In this study, the informants were parties involved in all activities

related to services at Mutiara Bunda Mother and Child Hospital. Data collection techniques were carried out by in-depth interviews and utilizing secondary data available at the hospital.

Result and Discussion

A Brief of Artificial Insemination

The rationale behind artificial insemination is increasing the gamete density at the site of fertilization (Hamid et al., 2022; Ombelet et al., 2020). Since many centuries different pioneers contributed to the history of artificial insemination, not only in humans but even more pronounced in farm animals. The primary reason for using this technique in farm animals was to speed up the rate of genetic improvement by increasing the productivity of food producing animals (Gebre et al., 2022).

This was accomplished by improving the selection differential wherein one highly selected male is mated with thousands of females. The AID industry was born. For humans the situation is different: artificial insemination was originally developed to help couples to conceive in case of severe male factor subfertility of a physical or psychological nature. Nowadays artificial insemination with homologous semen is most commonly used for unexplained and mild male factor subfertility (Zuidema et al., 2021).

In the previous century donor insemination was mainly used for male infertility due to azoospermia or very low sperm count and for inherited genetic diseases linked to the Y-chromosome (Punjani et al., 2020). Nowadays donor insemination is more commonly used in women with no male partner (lesbians or single women) (Johal et al., 2021; Monseur et al., 2019). Despite the extensive literature on the subject of artificial insemination with husband’s semen, controversy remains about the effectiveness of this very popular treatment procedure, particularly in relation to IVF (in vitro fertilization) and ICSI (Intra-Cytoplasmic Sperm Injection) (Li et al., 2022; Ombelet & Van Robays, 2015).

A mature follicle with a diameter of ≥ 18 mm and EMT of ≥ 7 mm, combined with the blood LH, E2, and P values as well as the urine LH level were needed to determine whether to proceed with the injection of either urinary human chorionic gonadotrophin (hCG) or gonadotropin releasing hormone agonist (GnRH- α) as well as to determine the injection dosage. The insemination was performed at 36–40 h after the injection of either hCG or GnRH- α . Artificial insemination timing: (a) ovulation after single IUI; (b) ovulation before single IUI; (c) double IUI before and after ovulation (the ovulation was observed within the next day of the first IUI); and (d) double IUI before and

after ovulation (the ovulation was observed after the next day of the first IUI). The washed semen sample was introduced into the woman's uterus using a syringe (Wang et al., 2021).

These washing procedures are necessary to remove prostaglandins, infectious agents and antigenic proteins. Another substantial advantage of these techniques is the removal of nonmotile spermatozoa, either leucocytes or immature germ cells. This may be an important factor in enhancing sperm quality by a decreased release of lymphokines and/or cytokines and a reduction in the formation of free oxygen radicals after sperm preparation. Sperm preparation techniques should isolate and select sperm cells with intact functional and genetic properties, including normal morphology, minimal DNA damage, and intact cell membranes with functional binding properties.

The final result is a better sperm fertilizing ability in vitro and in vivo (Aitken & Clarkson, 1987) and an increasing number of motile sperm that are morphologically normal at the site of fertilization. Bypassing the cervix, which acts as a reservoir for sperm, increases the importance of adequate timing of the insemination. Most popular are the swim-up procedure, the discontinuous Percoll gradient method, the mini-Percoll (small volume) gradient technique and the use of Sephadex columns.

Novel sperm selection methods (based on sperm surface charge or nonapoptotic sperm selection) show promising results. However, they have not yet established themselves in routine practice, and their purpose for AIH is unknown; more evidence is needed

Engagement of Professional Doctors

The doctor is a health worker who is the patient's first contact with the doctor to solve all health problems encountered regardless of the type of disease, organology, age group and gender, as early as possible, thoroughly, continuously and in coordination and collaboration with other health professionals by using the principles of effective and efficient service and upholding professional, legal, ethical and moral responsibilities (Fahrurroji & Darajat, 2013). Leadership and the involvement of other professionals are also important for the improvement of health systems, however, the status and influence of medical professions such as doctors really need a special focus of attention because doctors are very closely related to patients directly, which affects the number of visits to these hospitals (Denis & van Gestel, 2016).

The involvement of doctors in Mother and Child Hospital plays a very important role in increasing hospital efficiency. The impact of the enactment of Social Security Administrator in this hospital, the performance

of doctors is getting better so that it has an impact on increasing patient visits. With the increasing number of visits, the hospital BOR also increased. Mother and Child Hospital also applies the on call method, which means that patients who want to go to the hospital but the doctor has no schedule that day, the hospital can make an on call, so that patient satisfaction increases so that patients feel more prioritized. However, there are still doctors in Mother and Child Hospital who arrive late, not according to schedule, which affects patient satisfaction. This is in line with previous studies, namely the behavior of doctors who often arrive late, this can indicate the level of discipline and personal responsibility of each doctor in carry out duties and adhere to the rules that have been set have not been implemented (Listiyono, 2015).

Thus, it can be concluded that Mother and Child Hospital already has adequate specialist doctors, both in terms of the number and types of specialties according to the specifics of the hospital, namely Obgyn and Child specialists. Besides that, the hospital also has several general practitioners. Besides that, employees who have high work involvement with their work are characterized by employees having a high concern for work, a feeling of psychological attachment to the work being done and a strong belief in their ability to complete the work (Robbins, 2001). Human resources play the most important role in determining the progress of an organization, its human resources that are reliable and able to build good work character are one of the determinants of service efficiency (Hughes et al., 2018).

The skills and involvement of employees at Mutiara Bunda Mother and Child Hospital greatly affect the achievement of hospital efficiency. Good human resources will increase hospital efficiency. Increased efficiency can be seen from the increasing number of patients in the hospital, which is a form of success in the skills and involvement of employees at Mutiara Bunda Mother and Child Hospital. It can be concluded that employees at Mother and Child Hospital in general can be categorized as skilled in their respective fields and involved in a team in supporting the achievement of hospital goals (Handayani & Kasidin, 2022; Wibowo & Mochklas, 2020).

Organizational culture is something that belongs to the organization so it must be developed, maintained, or changed to create an organization that is effective and efficient in achieving its goals. In addition, organizational culture can affect the overall activities of the organization and direct the behavior of each member of the organization towards achieving goals. Within the organization there is organizational culture, organizational culture refers to a system of shared

meaning shared by members that distinguishes the organization from other organizations.

The form of organizational culture at Mother and Child Hospital is freedom of opinion and innovation, as well as high motivation. At Mutiara Bunda Mother and Child Hospital, a good organizational culture has been formed, namely by creating a good working climate, so that human resources are comfortable doing work and eliminating individualism from each employee, good teamwork will be formed. It is necessary to instill a sense of belonging, aggressiveness and competitiveness in employees, so that there are no relaxed employees. Based on observations made by researchers, it was found that the work environment and work atmosphere at Mutiara Bunda Mother and Child Hospital are comfortable, but currently the hospital is undergoing renovations so the patient's comfort in treatment is somewhat disturbed. Even though it's like that, the officers are still friendly to serve so patients waiting long with conditions being renovated are not a problem.

The organizational structure at Mutiara Bunda Mother and Child Hospital is in accordance with the rules, made in the form of an organizational framework and has been filled in by people who are competent in their knowledge. The hospital's vision and mission are also updated in accordance with the times. If the hospital does not update its mission according to the validity of National health insurance, the hospital will be left behind compared to other hospitals.

Conclusion

Intrauterine insemination with husband's sperm turned out to be a valuable first choice treatment before starting more invasive and more expensive techniques of assisted reproduction for many subfertile patients. The increasing demand of lesbians and single women for AI with donor semen is another challenge in many countries worldwide. Many debates, socio-cultural and ethical, are to be expected in the near future. The issue of using anonymous and/or non-anonymous donors will be one of them. The Director of the Mother and Child Hospital includes effective leadership because the performance of staff or officers at the Mother and Child Hospital has worked well, with the motivation provided by the leadership. The form of organizational culture is freedom of opinion and innovation, as well as high motivation. The hospital has adequate specialist doctors, both in terms of number and type of specialization in accordance with hospital specifications, namely Obgyn and Pediatric specialists. Artificial Insemination Pregnancy Program as a type of service is the first in Padang.

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Author Contributions

In this short study, researchers state that all contributors play an active role in the portion of cooperation that has been agreed together, so that the contribution is very valuable and provides an extraordinary completeness of the study. In the future, we will continue to prioritize fair and collaborative cooperation for the purpose of developing the knowledge we need.

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Conflicts of Interest

This research is aimed to developing science, so it can be declared free from any interest other than the development of science, especially the field of medicine, more specifically regarding artificial pregnancy services at RSIA Mutiara Bunda Padang. The funder did not interfere in the idea, proposal, implementation of research until the publication of the results of this study. Likewise, Mutiara Bunda Hospital was also not involved and intervened in the policy of this research. The hospital is only a research location and obtains data according to the research topic only. RSIA Mutiara Bunda was chosen only because it was the first hospital in the city of Padang to have a pregnancy program facility using the artificial insemination method.

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