

Economic Burden of Infertility Treatment on Lower Income Citizens and Countries

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ABSTRACT

Every country face various health problems but they follow different approaches for solving the health issues. The rich countries invest more on research and financial assistance for reducing the burden of treatment for their citizens and on the other side in poor countries or underdeveloped countries the patients are categorised on the basis of their income as high income patients get good healthcare in costly health centres but less income patients suffer because there is no financial assistance from government and insurance sector. The various researches are showing that from past decades the problem of infertility is increased in developed and developing country. The developed countries think more about the increasing infertility issues so they invest more in research work and give financial assistance to their patients. But in developing countries the infertility problems is considered on the basis of income of the patients. The high income earning patients moved to well equipped and costly hospitals or they move to other country for the treatment but the low income earning patients face various problems because the treatment becomes a burden on them. They don't get any financial assistance from government and insurance sectors. The study is focusing on the economic impact of infertility treatment on patients and how the government and insurance sector is ignoring such severe health problem. The patient face direct, indirect and some hidden cost for the infertility treatment. They not only face economic burden but they fight with social and psychological trauma also. The Cost Benefits Analysis can be a measure for comparing the cost and benefits of any investment in infertility treatment provided by the government. In the evaluation if the benefits are more than the cost than investment should be given by the government for providing medical assistance to those patients.

Keywords: Insurance Sector, Infertility, Financial Assistance, Developed, Underdeveloped and Hidden Cost

INTRODUCTION

The infertility treatment is a economic burden because it involves heavy cost on medical assistance, not only cost on various treatment methods but there is also expenses on travelling far places for treatment. As we know that, in low income and middle income countries the insurance is scarce. The lower income countries are not packed with insurance in these areas of treatment. The various studies are showing that heavy and large share of income is expended on these treatments (Orji *et al.*, 2002). The desire of having a own child leads many men and women to various sacrifices. Men and women

who are suffering with these infertility issues need better medical and financial assistance from government. According to a WHO report out of 6 people one is affected by infertility at global level. About 17.5% of the population in between child bearing age group is suffering from these infertility issues (Sayeed, 1999).

There are various treatments for this infertility issue but those treatments are not affordable for lower income growth couples (Guntupalli and Chenchelgudem, 2004). Though the success rate of these treatments are also not satisfactory but couples who want their own child they go through with these treatments and expand huge amount of their income.

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The infertility issues are not a matter to discriminate between rich and poor couples. The proportion of affected peoples are showing that there is more need to develop the fertility treatment and make sure that these issues should not be ignored in both medical researches and policy formation. It should be responsibility of medical sector and government to frame safe, affordable and more effective ways for such couples who are struggling to attain parenthood. Infertility is a disease of reproduction system as when a male and female are failing to conceive after 12 months or more of regular participation for conceiving then only, the doctor considers this issue as an infertility. The infertility is affecting not only financial status but it also causes distress, anxiety, mental health and psychological health (Nachtigall, 2006). The magnitude of the issue is wide but the solution for diagnosis and treatment of infertility are IVF and other medical assistance that are very expensive. The treatment of IVF is expensive and it is underfunded and unaffordable to many couples due to heavy costs incurred on it. In lower income countries, the people are expending the greater part of their income on the prevention and diagnosis of infertility. The developed countries are also suffering with these issues but as their income level is high so such expenditure is not affecting them but it is affecting the poor country citizens more in number. The developing countries' citizens are not thinking about the cost of the treatment. But in developing countries most of the infertility patients are not able to think about this costly treatment (Nukunya, 2003).

The cost-benefit analysis helps in comparing the cost incurred on infertility treatment projects and benefits from that project. It helps in showing the cost and benefit in monetary terms. It not only determines whether the project is financially justifiable but it also explains and shows the feasibility of the project. It explains about the cost incurred on any project and how much standardized benefit will come from the implementation of the project on the citizens and nation. The cost-benefit analysis can help in evaluating and measuring the feasibility of providing infertility treatment by public sector undertakings. With the help of comparison of total monetary cost with the monetary value of benefits, it helps in showing that there are advantages of infertility treatment given by government undertakings are far more important than the expenditure incurred on the project.

Cost-Benefit Ratio formula for analysing the profitability and loss of investment in a project of

providing medical assistance in infertility-related issues is:

Cost-Benefit Ratio = Total Benefits ÷ Total Cost

- When CBR is more than one, it shows that the investment in subsidised infertility treatment assistance by government will be beneficial.
- When CBR is less than one, it shows that the investment in subsidised infertility treatment assistance by government will be only a costly investment and benefits are less.

The evaluation of cost of investment can be calculated easily in quantitative terms but the evaluation of benefits to the patients is not easy as it is concerned with qualitative terms whose economic evaluation is not possible. Satisfaction, happiness and relief can be measured in monetary terms. So the government can invest for the welfare of patients and upliftment of women.

The cost includes not only direct costs on buying medicine, hospital expenditure etc. but it also explains the indirect costs like loss of wages or salaries due to taking leaves, pain, trauma and suffering of the patients. The benefit of such expenditure can help in improving the health and productivity of patients. It also improves the social economic status of the patients, so the benefits are more than the cost. It will reduce the future treatment cost. This will not only improve the quality of life but also improve the social status of the patients. Various steps are followed under cost-benefit analysis like defining the treatment and other measures provided by the government, medical assistance through infertility treatment hospitals and financial assistance by adding infertility in the health insurance, giving subsidy on the treatment taken by the patients from the private hospitals, estimation of cost by evaluating the cost of resources, its supply etc. Evaluation of the monetary value of such assistance provided to the infertility patients through cost-benefit analysis is difficult because the monetization of the life and pain of patient is not easy.

The investment on the infertility treatment will provide positive externalities as it will help in achieving Sustainable Development Goal- 5 (SDGs-5) which focuses on gender equality and women empowerment by 2030. By providing such assistance in infertility treatment, government can improve the health of women as when women are physically healthy only then they can help and support in the economic growth of the country. A traumatic and depressed woman will not uplift the society and nation.

Types of Cost:

- There are direct cost like a cost on consultation with doctor, a cost on purchasing medicines, cost on various test related to infertility, cost on various procedures like retrieval of egg from ovary, extraction of sperm from male, cost on a small surgery related to the procedure and cost on hospitalization.
- The indirect costs like loss of wages or salary due to taking leave from job, cost on travelling to medical centres and cost on accommodation.
- It is out of pocket expenses as in many countries the treatments are paid by patients because there is less or no insurance availability.

Couples are spending greater part of their annual income and even some are selling their properties, land and assets for the treatment and this is widely seen in under developed countries like India. The infertility is not triggering only economic side of men and women's but it is also impacting the emotional side of couples.

In India, the income is already less and the pupil who are suffering with infertility are spending large part of income on the treatment and at last it push them into poverty. The financial crisis and emotional trauma causes various other issues like anxiety and depression. The World Health Organization is framing various things for combating the issue but they are helpless in solving the problem related to cost of treatment.

Male and Female Infertility Statistics:

Various studies are showing the causes of infertility in which about 30% of female are affected, 25% cases in which there is unexplained infertility and 5% are other factors. The reason of male infertility is due to lifestyle and environmental factors which reduce the sperm count. But in females the reason of infertility is due to disorder of ovary, tubal blockage, improper ovulation .etc.

About 17.5% of adults are suffering within fertility globally. It is affecting citizens of developing countries and developed countries together. The couples who are experiencing this issue from which about 33% are male factors. The 33% are female factors and about 33% are both male and female factors are reason of infertility and unexplained reasons in few cases. The studies and reports are showing that from 1990 to 2021 the infertility problems has increased in both male and female and from which male infertility is rising faster than the female infertility.

Financial Debt Due to Infertility:

The debt is very high due to expensive treatment as there is lack of coverage by insurance companies, the 100% cost is beard by the patient only. the treatment involve multiple cycles that also increases the cost of treatment. Some patients take personal loan for the treatment, some use their past saving. Due to these reasons the burden increases. Due to the direct cost of infertility that is treatment cost and indirect expenses on infertility that is travelling cost and wage loss is also pressurising the couples to take personal loans and credit. The infertility cases are not included in the insurance policies and there is no support from government also.

Reasons for Financial Debt:

There are various reasons for debt like-

- Expensive treatment cost because its medication and treatment cycle involved huge cost.
- No or very less coverage by insurance companies are not able to cover the treatment cost.
- Various indirect expenses are also creating financial burden on the patients like travelling to other cities or places where treatment is running and the expenses on accommodation. Sometimes the men and women lose their wages due to taking leaves from job. This involve high cost that are the reason of financial crisis among patients.
- Some hidden costs are also there like cost of medicines and various tests related to the infertility are also increasing financial burden which not only reduce the saving of the patients but it also increases the financial burden.

Societal Ignorance Due to Infertility:

The infertility in men and women is a medical condition which affect millions in developed and developing countries. But in developing and backward countries it is treated as a shameful or taboo. Due to lack of education in the most of the cases the society blames women due to which they move to psychological distress condition. They discriminate such women's in social gathering. There are misconceptions and myths regarding the infertility as it is not a biological issue but it is due to curses, some blackmagic and punishment given by God. In some cases the society ignore the male factors due to male ego and it delays the medical assistance in

the diagnosis of infertility. Due to lack of education, the family and society don't think about the biological clock of female and hold the woman for keep waiting and have faith in God, it also delay the timely treatment of infertility and make the problem severe.

The infertility patients feel isolated in social gathering, in some families they do not allow such women in various rituals and avoid them. It leads this kind of patients into depression and isolation. The political will of government is also a reason because as the insurance companies are not giving any coverage and government is not thinking the infertility issues as a major serious problem as like other diseases. The government provides subsidies on the treatment and cure of diseases like cancer but they ignore giving any financial assistance to this serious issue related with infertility. Due to ignorance from society, such individuals are affected mentally, it not only increases their anxiety and depression but it also affect their self esteem. The society pressurise them to get separated from each other and make family with other new partner. The proper education and awareness can help those society to understand that it is a medical issue not a taboo.

Mental Trauma Due to Infertility:

The infertility treatment and its problem increase the anxiety rate and depression among men and women. It also reduces the self esteem between couples. The long and expensive treatment of infertility affect the mental health and it also affects the daily life. The patients need some time mental counselling for controlling the anxiety and depression but if they take consultants from psychologist then the society will call them as mental patient. The anxiety and depression is due to high stress level. The failure of treatment also affect the patient and increase the stress level. The feeling of shame and ignorance from friends, family and society also affect the emotional and psychological level of such patients.

Various researches are showing that up to 40% in women's who are suffering with infertility have high rate of anxiety and depression. The reason of anxiety and depression is either due to infertility or due to its treatment. The psychological impact increases when there is failure of cycle of IVF. Infertility and loss of child trigger the stress symptoms. The feeling of shame and guilt leads the patients towards social isolation. It also affects the relation with family, partner and friends. These all again affect the mental health. The infertility and loss of pregnancy develops a feeling of personal failure and

emotional toll.

Success and Failure Rate of Infertility Treatment:

The rate of success reduces with age as underage of 35 the rate of success is 40-50% per cycle but over the age of 40 the rate of success reduces to 10-15%. Various researches are also showing that by multiple attempts of infertility treatment like IVF the cumulative success rate increases. The success rate depends on various factors like age of the patients, lab quality where treatment is going on, and the clinical expertise.

The treatment of Infertility in Developed and Developing Countries:

The treatment of infertility given in developed countries are more advanced and highly costly. But due to use of high advanced technology the success rate are also more than the developing countries. The developed countries are using more advanced technologies that helps in increasing the success rate. In such countries the infertility is considered as a health issue and are covered by insurance sectors but still it is an economic burden on patients suffering with infertility.

In developing countries like India the major hindrances are high cost of treatment, lack of infrastructure, lack of trained clinical expertise and lack of advanced technology. In such countries the infertility is not considered as severe health issue by the government and the insurance facility is also not available for the treatment of infertility.

Subsidies Given by Government for the Treatment of Infertility:

There is no subsidy provided by central and state government for the treatment of infertility but there are few states like Tamil Nadu who provide subsidy on the treatment of infertility for low income patients.

Insurance Facility by Insurance Sector:

The standard health insurance are not covering the infertility treatment. The PMJAY is not covering the IVF and infertility treatment because they don't consider it as a severe health issue. But few states like Rajasthan are about to start it, in there CM Ayushman Yojana. The other states should also follow them for giving the financial assistance to the patients.

Conclusion:

In low income developing countries like India the rising infertility crisis need special attention of government through new policies and approaches. The government can help in dealing with this severe issue of infertility by tracking the data about the patients those are suffering with infertility and are also not able to follow the expensive treatments of infertility. The subsidy and insurance should be provided to the patients those are suffering with infertility. The treatment should be provided in public health centres and government hospitals. The public private partnership can also be given for providing low cost treatment in rural areas together with urban areas. Government should increase investment in technologies which are cost effective and researches which help in understanding the causes of infertility.

The government should also monitor the treatment given by private infertility care units. Proper training should be provided to the medical practitioners related with these treatments. The awareness should increase by educating the public of rural and urban population through various campaigns. The counselling should be given to patients for understanding their psychological impact. These awareness and counselling services will reduce the depression and anxiety among such patients. The strict policy and regulations are needed for reducing the unethical, unsafe and practices that are exploiting the patients. The various research and innovations are needed that can help in reducing the cost of treatment. The research should be encouraged for understanding the causes of infertility in different patients and in different demography. The research will not only find the cause

and new technologies of treatment but it will also help in reducing the economic burden of infertility treatment.

Poor countries are not taking it as a major health issues though it is affecting the mental and psychological condition of men and women's who want to enjoy the parenthood. There is more need to invest in good health policies and insurance coverage for infertility. Like other severe diseases the treatment of infertility should also be subsidised. So the Cost Benefits Analysis can help in evaluating the cost and benefits of infertility treatment provided by government.

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