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Infertility Research: Is Current Status Satisfactory Or More Insights Needed To Be Drawn?

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Perspective Article

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Infertility defines the major problem of not being able to achieve pregnancy even after serial participation in unprotected intercourse [1]. There are 80 million couples suffering from infertility across the globe. Infertility has been observed notably in aged couples. Due to increase in life expectance, the average marriage age has raised to mid-thirties. This had a tremendous impact on delayed parenthood and many times leads to infertility [2]. Though infertility is not a major problem of concern in highly populated developing countries, the other factors like derogation of societal value and chances of spousal abandonment are forcing couples from having children and thus developing countries are also in need of infertility solutions [3,4]. Infertility can be primary or secondary. Primary infertility is when no pregnancy was achieved previously. Secondary infertility refers to no successful live births or miscarriage though pregnancy occurred previously [5]. The reasons for infertility are plenty [6-8]. Few include PCOS [9-16], male factor infertility [17-24], endometriosis [25-30], uterine fibroid, blockage of tubes, ovulation problems, unexplained infertility [31-33] and combined infertility [34]. Globally, the causes for the infertility were observed as 19-57% by men, 30-64% by women and 8-30% by unexplained reasons [35].

Many methods have been developed to assess infertility. Towards assessing male infertility, semen analysis which study several parameters like Ejaculate volume, sperm motility, morphology and concentration have been the routine [36,37]. In females, the common infertility assessment methods include studying endometrium receptivity for healthy embryo [38] and tubal obstructions [39]. There is limited number of options available for infertility treatment. The literature substantiated the existence of drugs for ovary stimulation from natural and synthetic sources which showed specific and effective action in treating infertility [40]. As per the reports, assisted reproductive technologies (ART) have provided helping hand to 50% of the infertile couples all over the world [41,42]. In vitro fertilization which is an assisted reproductive technique has been gaining popularity in recent times. Live births using IVF have risen to double from 2007 to 2008 [43]. The total of 5 billion births has been recorded using IVF [44-54]. Intra-uterine insemination (IUI) is another fertility treatment method which also proved successful in achieving clinical pregnancy [55,56].

On one side, such research and clinical efforts towards improved infertility treatment are increasing hope among infertile couples who cherish to have children [57-73]. On the other side, the drawbacks, complications and controversies involved in the treatment processes such as costs involved, uncertainty of outcome, chances of continuous failures and risks of birth defects are inducing psychological stress [74-79] and raising doubts about whether to opt or not to opt for such treatments. In this regard, before to the start of treatment process,

investigations on psychological screening of infertile couples who are willing to have infertility treatment for vulnerability to undergo depression finds an important role. Assessing the level of awareness, acceptability and perception about assisted reproductive technologies (ART) [80-82] among infertile couples will help advance the methods towards infertility treatment. Further improvements or refinements with continuous practice of the methods will create hope and relieve psychosocial stress among infertile couples.

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