Preimplantation genetic diagnosis (PGD) is a relatively new technique in assisted reproductive technology. Combined with in-vitro fertilization (IVF), PGD allows the diagnosis of genetic disorders in embryos before they are transferred to the uterus. Although there have been many studies on the indications for PGD as well as its ethical and societal issues, there is little information about its psychological implications. The purpose of this pilot study was to determine the levels of anxiety in women considering PGD, and to compare them with those of women who are having an initial consultation for IVF (for non-genetic fertility issues) and pregnant women who are having genetic counseling for advanced maternal age (AMA). We examined the levels of anxiety in IVF patients because, from a patient’s perspective, the actual experience of going through PGD is not different from that of IVF. Therefore, IVF patients would help us determine the “baseline” level of anxiety. In contrast, AMA patients were chosen from a genetic counseling perspective, because women considering PGD are typically seen by prenatal genetic counselors who also see AMA patients. Such patients present a good comparison group because so much is already known about their psychological state.

The State-Trait Anxiety Inventory was used to assess levels of anxiety in the PGD and AMA groups after genetic counseling, and in the IVF group after an IVF consultation. An additional questionnaire was used to obtain demographic information, reproductive history and their perception of risk. One hundred and twenty-two patients were recruited for this study: 29 (23.8%) PGD patients, 29 (23.8%) IVF patients and 64 (52.5%) AMA patients.

Our results show that women considering PGD had comparable levels of anxiety as the other two groups. In fact, all three groups had levels of anxiety that would otherwise be considered as normal in the clinical setting. Since this is a pilot study, further research on this area is warranted. However, our study does illustrate that the basic tenets of genetic counseling always apply. Each patient is an individual with their own level of concern, anxiety and issues and should be treated as such.