



# Experiences, Perceptions, and Meanings of the Ultra-Orthodox in Israel Regarding Premarital Genetic Testing

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Accepted: 8 May 2023 / Published online: 23 May 2023

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## Abstract

This article focuses on experiences and perceptions of the Jewish ultra-Orthodox population in Israel—a religious minority—regarding premarital genetic testing. Semistructured interviews with 38 ultra-Orthodox individuals revealed four major themes. These themes reflect strong awareness of testing importance among Ashkenazi ultra-Orthodox, along with a high frequency of testing, while low awareness of testing importance was evident among Sephardi ultra-Orthodox along with a very low frequency of testing. The study’s findings also indicate the central role that the Ashkenazi rabbis have in the routinization of the premarital genetic testing among their communities. Study limitations are discussed, and future research recommendations are provided.

**Keywords** Premarital genetic test · Health behaviors · Religious minorities · Ultra-orthodox

## Introduction

The present study is focusing on the issue of premarital genetic testing among the ultra-Orthodox community in Israel, shedding light on the experiences and perceptions of community members and its leadership toward premarital genetic testing.

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The ultra-Orthodox (Haredi) population is a religious minority in Israeli society and the Jewish world. In Israel, the Haredi population contains 1,280,000 people (13.3% of the population). Characteristics of this community include a young marriage age, high rate of marriage (86% aged 20+ were married, versus 63% among non-Haredi Jews), high fertility rate (6.5 children per woman), a young population (58% age 0–19), and low socioeconomic status (Malach et al., 2022).

The Haredi population is defined by adherence to strict interpretations of Jewish law; male commitment to religious (Torah) study; community member obedience to religious authority (rabbis); strict modesty norms; isolation from majority society (Brown, 2017); and an objection to or reservations about a pre-messianic State of Israel, the latter mainly among its extreme groups (Inbari, 2016; Keren-Kratz, 2017).

The Haredi community emphasizes the centrality of the institution of marriage, seeing marriage as a religious and community obligation. Married life is considered the best way of securing sexual purity, individual morality, community demography, and the continuity of community life (Zalberg, 2012). The institution of marriage also draws community boundaries, by defining rules about who can marry whom, and who can have children by whom (Lehmann & Siebzehner, 2009).

Because of marriage importance, Haredi parents do whatever they can to marry off their children, with arranged marriage the norm. Berta (2023) emphasized a great diversity of arranged marriages, all offering different degrees of choice and arrangement based on individual family backgrounds, varying according to different social, political, cultural, and religious contexts. In the current context—that of the Haredi community—in addition to personal compatibility between the prospective spouses, marriage has a transactional element between the parents of both sides, in which certain elements such as the groom's scholarship abilities, the families' background (in terms of pedigree, previous problems such as divorces, and health and behavioral problems), and pure economic considerations are all translated into a single value scale.

Special importance is given to the health status of a prospective and his/her family. Mental, physical, and psychological disabilities of a prospective match or family member reduce the value in the marriage market. A hereditary disease is highly likely to immediately disqualify a prospective match, mainly because of severe stigma and the fear of hereditary diseases (Lehmann & Siebzehner, 2009).

In the last 2–3 decades, many Haredim added another central consideration: “genetic compatibility” of the prospective couple. “Genetic compatibility” (GC) means that two members of a couple are not both genetic carriers of the same recessive disease. Because if both parents are carriers, any child of theirs would have a high (25%) probability that the disease will manifest. In this context, GC relates to several diseases prevalent among the Jewish population (Raz, 2010).

In Haredi society, it is customary to investigate prospective candidates via relatives, acquaintances, rabbis, and matchmakers (Zalberg, 2012). The Haredim, however, leaves the “investigation” of GC to the *Dor Yeshorim* association (DY). And thus, in recent years, initiating a match depends on the results of DY premarital genetic testing (PGT) (Prainsack et al., 2010).

While many studies have been published about the health behaviors of Haredim in Israel (Gabbay et al., 2017; Chernichovsky & Sharony, 2015; Leiter et al., 2019; Pinchas-Mizrachi et al., 2021; Zalcberg & Zalcberg Block, 2021; Zalcberg Block & Zalcberg, 2023), there is almost no in-depth updated research on experiences and ramifications of PGT, among the Haredim in Israel. The present study aims to fill this lacuna and to examine experiences and perceptions of Israeli Haredim concerning PGT; to learn how PGT penetrated Haredi society in Israel; to present difficulties of Haredim in conducting PGT; and to discuss the social and religious meanings of PGT.

To situate the present research aims within a broader context, the article starts with a review of the main streams within Haredi society and the process of mate selection among them. Then, the article reviews the health behaviors of Haredim, as well as the background of DY. The research method is then specified and findings are reported. The article concludes with a discussion and specific conclusions.

### **Main Streams in Haredi Society and Process of Mate Selection Among Them**

The Haredi community includes a wide range of groups, which are classified into three major streams: (1) Hasidim, whose society is organized around a Hasidic “court,” led by a *rebbe*, who shapes his congregation; (2) Lithuanian, characterized by a relative openness to modern life compared to Hasidim; and (3) Sephardim, comprised of Jews stemming from North Africa and the Middle East who have adopted much of Lithuanian lifestyle (Sephardim contrast the first two streams, which are comprised of Ashkenazi Jews stemming from eastern Europe) (Brown, 2017). Each stream has its educational institutions, with a blatant exclusion of Sephardim from Ashkenazi institutions, as part of a general exclusion of Sephardim, by the Ashkenazi Haredim (Leon, 2016).

The literature also distinguishes between the mainstream moderate camp of Haredi society and the minority extremist camp, which refuses to recognize the legitimacy of the State of Israel as a Jewish State (Inbari, 2016; Keren-Kratz, 2016). This camp adopted a hard-line anti-Zionist stance and demanded that its members isolate themselves totally from the Zionist enterprise and the State of Israel. The extremist camp includes groups and communities such as the “Jerusalemites,” Brisk, Dushinsky and Nenturi Karta, and extreme Hasidic circles (“courts”) such as Munkatch, Pinsk-Karlin, Satmar, Spinka, Toldot Aharon and Toldot Avraham Yitzchak (Inbari, 2016; Keren-Kratz, 2016).

The mainstream camp, despite its original reservations about the establishment of a Jewish state, has acknowledged the existence of the State of Israel since its establishment and has representation in the political arena. Typically, this camp tends most of the time to follow the state’s laws and avoids clashes with state authorities, while the extremist camp tends to engage in anti-Israeli protests which (as with other groups) turn to violent clashes with the police. The degree of young people’s involvement in decisions about whom to marry vary from stream to stream and from group to group, and it correlates with opportunities given to young people to meet each other before their engagement, and their freedom to refuse a proposed match

(Zalcborg Block, 2013). Among Hasidim, parents are the main decision-makers about a match for their child, after investigating offers from a matchmaker. If there is an initial agreement between sets of parents about a match and financial arrangements of the prospective couple, they arrange for their children to meet. The meeting takes place at the girl's house, for no longer than an hour, in a room with an open door to prevent "Yichood" (being alone together in a private space). An intended couple may meet once or twice more, following the same format. At the end of these few meetings, they must decide whether or not they agree to the match (Zalcborg, 2012).

Among the Lithuanians and the Sephardic, financial arrangements between parents are also considered central, with the connection between the parties initiated through a matchmaker. Yet there is greater individual freedom in choosing a spouse. To avoid "Yichood," prospective couples meet in the lobby of a respectable hotel or an open public space. After 5–8 meetings, they decide whether to formalize the relationship within a marriage, or not. Among all streams, premarital sex is forbidden and even physical touch before marriage is unacceptable (Zalcborg Block, 2013).

Haredim have a high tendency for endogamous marriages. Most marry within their stream, and the two Ashkenazi streams—Hasidic and Lithuanian—are particularly careful to avoid marriage with the Sephardic, whom they see as inferior (Leon, 2016). Many Hasidim tend to marry within their own court. Sometimes, mainly in small courts, there are marriages within families. In such cases, conducting PGT carries critical importance, similar to endogamic marriages in other separatist communities with a relatively long group lifespan (Prainsack & Siegal, 2006). Moreover, because Haredim tend to avoid abortions even due to problems with the fetus, the importance of PGT is greatly increased (Raz & Vizner, 2008).

## Health Behaviors in the Haredi Community

Haredim in Israel engage in low levels of health-promoting behaviors, similar to other populations characterized by low socioeconomic status (Leiter et al., 2019). Despite that, the general health level of Haredim is considered high (Chernichovsky & Sharony, 2015), with a longer life expectancy compared to other Israelis (Pinchas-Mizrachi et al., 2021). This is attributed to aspects embedded in religion known to promote health, such as rituals and practices, a faith-based worldview, and particularly high social capital (Chernichovsky & Sharony, 2015).

The literature refers to social capital elements embedded in religious communities, and promotive of healthy behaviors, such as clergy, inter-communal welfare, and networking. Yet, the literature also addresses possible negative consequences of social capital, when religious leaders' guidelines conflict with medically appropriate actions (Shapiro, 2022). A major component of Haredim's social capital is strong connections with religious leaders—rabbis—the ultimate authority, not only in religious aspects but in all areas of life, including health (Brown, 2017).

As such, they have a major effect on Haredi health behaviors. Rabbis also influence the access of Haredim to health knowledge, a significant factor in health

promotion. The impact of the rabbis on health behaviors of Haredim was clearly seen during COVID-19 (Zalberg & Zalberg Block, 2022).

In the past two decades, Haredi society has gone through increasing integration with the majority society across various aspects of life (Malach & Cahaner, 20,222). These changes have led the Haredi community toward a gradual increase in cooperation with state institutions, including aspects of health (Zalberg, 2020). DY, which performs the PGT, is a good example of such collaboration.

## Dor Yeshorim—Background

DY was founded in the USA in 1983, by rabbi Yosef Eckstein, a Satmar Hassid, four of whose children died of Tay-Sachs—a hereditary disease, prevalent among Ashkenazi Jews. Because of the resulting stigma, Eckstein encountered great difficulty in marrying his healthy children (Raz & Vizner, 2008), leading him to establish DY to save others from a similar fate.

Initially, DY offered tests for 11 diseases, common among the Ashkenazi population (Prainsack et al., 2010). In 2013, DY added a list of tests for non-Ashkenazim following recommendations of the Israeli Ministry of Health (MOH) and the Association of Geneticists in Israel. Today, the DY list of tests has been significantly expanded, including 54 diseases in its basic panel, which is intended for all Jewish ethnic groups, and it's subsidized by the state. Since its inception until the end of 2021, about 600,000 people have been tested. In the last year about 38,500 compatibility requests were received, with 380 of them returned as Not-Compatible (Dor Yeshorim, 2021).

Despite PGT's importance among the Haredi population and DY's new developments, there are almost no updated studies examining experiences regarding PGT among Israeli Haredim. The few existing works, despite their importance, were done over a decade and a half ago, focusing on PGT from the perspective of DY founders, rabbinic leadership (Prainsack et al., 2010), and Haredi women (Raz & Vizner, 2008), all Ashkenazi, and all based on small samples, from which the ability to draw conclusions was limited, according to the researchers. The purpose of the current article, thus, is to present up-to-date knowledge on the subject, while focusing on the question: What are the experiences and perceptions of the Haredi population in Israel, for its variety of streams, regarding the PGT?

## Method

### The Research Paradigm

The current study utilized a qualitative paradigm (Denzin & Lincoln, 2011) that focuses on reality—as it is perceived by those living it—while emphasizing a context-informed approach (Roer-Strier & Sands, 2015). This approach allows for

insights into participants' experiences through their unique social-cultural context and the significance that they attach to those experiences.

### Sample and Sampling Method

The study population included men and women 18 years of age or older from the various streams of Haredi society in Israel. Major data were collected in 2022. Authors reached out to their contacts in the Haredi community, who were known to them from previous studies. These contacts helped recruit 30 participants for the current study, from the three Haredi streams—Hasidim, Lithuanian, and Sephardim. In addition, the study included 8 participants—Hasidim and Lithuanians—who were recruited as part of a previous study, in 2015, which dealt with the subject in a limited way. These participants were recruited through key people in the Haredi community, and they supplied information about experiences with PGT during the first years of DY.

The final sample, comprised of both sources, included 38 participants, half of them females. Participants' ages ranged from twenty to seventy-five; more than half were married. Thirteen participants were Hasidim (5 of them from the extreme Hasidic circles), twelve were Lithuanian (including two senior workers of DY), and thirteen were Sephardim. All lived in urban areas. Eight participants were students, seven worked in business, financial services, and clerical, and seven (all male) dedicated their time to Torah study in yeshiva (*Kollel*). Six worked in welfare and allied health professions and six worked in education. Three were housekeepers (women) and one was a rabbi (Table 1).

### Data Collection

Data collection consisted of semi-structured interviews conducted in Hebrew. The interviews were based on an interview guide that was formed based on previous studies focusing on health behaviors and aspects related to spouse selection in the Haredi population (Zalcborg Block, 2013). The interview included topics related to PGT awareness, means of implementation, how and when compatibility is verified, perceptions regarding PGT, and barriers and facilitators in conducting PGT.

Each interview lasted between 1–1.5 hours. With the consent of participants, all interviews were documented – 34 were recorded and transcribed, and four were documented only in writing, according to participant preferences.

### Data Analysis

Data analysis was based on the thematic analysis method (Braun & Clarke, 2006). In the first wave, authors read all interviews several times. In the second wave, authors identified preliminary ideas by reading the first ten interviews again, breaking down

**Table 1** Participant demographic characteristics ( $n = 38$ )

Characteristics	
Gender	
Male	19
Female	19
Marital status	
Single	16
Married	22
Age	
20–24	14
25–34	8
35–44	6
45–54	5
54–75	5
Education	
High School (females)/Parochial Yeshiva (males)	26
College	12
Employment	
Student	8
Education	6
Rabbi	1
Welfare and allied health professions	6
Business, Financial services, Clerical	7
Financial supported Torah Study (Kollel)	7
Housekeepers	3
Affiliation within ultra-Orthodox Society	
Hasidim	13
Lithuanian	12
Sephardim	13

each case into segments representing discrete units of meaning. Then, the codes identified were grouped into initial themes. As the authors continued reading, some of these codes were removed or revised, with additional codes added. In the next stage, themes and subthemes were reviewed, classified, and reclassified as required. Lastly, themes were refined and named, and interrelationships were suggested.

Data saturation was reached when there was enough information to replicate the study, when the inability to obtain additional new information has been attained, and when further coding was no longer feasible (Fusch & Ness, 2015).

### Quality Assurance and Ethical Aspects

The study's quality assurance was based on the criteria of Lincoln and Guba (1985) of qualitative research. The *credibility* of the findings was established by including participants from various Haredi streams and groups in order to obtain a broad range

of opinions on the subject; usage of an in-depth interview to encourage free and open dialog; repetitive review of data collection and analysis processes; and engagement in a peer review process of the findings, and implementation of recommendations.

Further, to reduce author bias, there were efforts on having authors be aware of their perceptions about the study's topic and an explicit effort to avoid guiding participants to discuss particular topics during the interview. This step supported the findings' *Conformability*. The *transferability* of findings was demonstrated by inclusion of a detailed description of participants, the research process, and an explanation of how the findings fit within the relevant cultural context.

The study was conducted following the code of ethics as determined by the American Psychological Association (Campbell et al., 2010). As such, the study's purpose was explained to participants before starting interviews. Participation was voluntary, and participants were notified that they would be able to withdraw from the study at any given time. Participant confidentiality and anonymity were ensured throughout all stages of the study and included the omission of all identifying details.

## Findings

Analysis of the data identified four major themes that reflect the experiences and perceptions of the Haredi population regarding the PGT: The first one refers to the awareness of PGT importance and the process of its implementation. The second relates to the conduction of the compatibility verification between two intendants. The third focused on the routinization of PGT in the Haredi community. And the fourth presents perceptions regarding PGT as an expression of a religious view (Fig. 1).

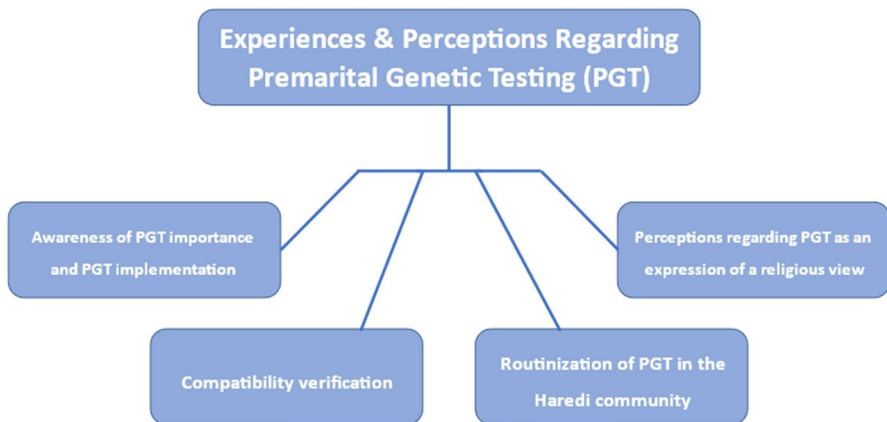


Fig. 1 Categorization of participants reports regarding PGT



## Awareness of PGT Importance and PGT Implementation

All participants reported awareness of PGT, and most single participants (12) or those married in the last 15 years (17) reported that they did the PGT. However, the reports of participants attest to differences between the Haredi streams regarding the awareness of PGT importance and the logistics of implementation. All Lithuanian participants reported that PGT is a matter of routine in their community for two decades, and that most young Lithuanians comply. One of them, who got married 5 years ago, said: “Of course I did PGT. Today, among Lithuanians, almost everyone does. DY comes to educational institutions and conducts blood work. At 17, DY came to my yeshiva and did the test for the whole class.”

Similar reports emerged from most Hasidic participants (10), as reported by a parent, who already married five of his children:

For us, PGT is a matter of routine. We don't make a story out of it. We, the parents, are not involved in implementation. My children did the procedure in school, where it's explained to them about PGT importance. DY lab-orants come to the yeshiva and the seminar (the high school for Haredi girls) and take blood samples from all students aged 17-18.

Exceptions in this matter are Gur Hassidim. According to participants from Gur, PGT is not done comprehensively in the educational institutions of Gur. As one of them, who got married about a year ago, explained:

PGT arrived at Gur only in recent years, and it's not acceptable for us to test collectively, in school. Those who wish, do PGT privately in DY's office. It's not something we talk about out loud. Our Rebbe does not encourage PGT, he doesn't want to evoke a wedding atmosphere among the young guys, fearing distraction from Torah study. But he doesn't forbid it, either.

Although the Gur Rebbe does not formally encourage PGT, most young Gur Hasidim test privately, as a young Gur woman, who got married 3 years ago, said: “of course we test. I did and so did my siblings. But we do so modestly, privately.”

A senior employee at DY supported these reports. According to her, "Approximately 95% of Ashkenazic Haredim do the PGT before finalizing a match." Unlike Lithuanians and Hasidim, Sephardim have less awareness of the issue, and accordingly, doing the PGT is much less common among them, as indicated by all Sephardic participants. One of them, in her early twenties, said: “DY conducts blood work only in very few Sephardic seminars, and they hardly come to Sephardic yeshivas. PGT is still not prevalent among us, as it is relatively new for us.”

Following this, another senior worker at DY explained:

In the last decade, our panel includes also tests for Sephardim; but because during our first years, PGT was mainly intended for Ashkenazim, Sephardim are less familiar with it. They think genetic diseases appear only among Ashkenazim. When PGT was a novelty for the Ashkenazim, our workers used to

do advocacy activities for Ashkenazic educators and parents. Today, there is almost no need for it, only among Sephardic parents, rabbis, and educators.

Another participant, an important Sephardic rabbi who is the head of a leading Sephardic Yeshiva, supported the senior worker's words:

Our yeshiva does not invite DY, nor do many other Sephardic Yeshivas. This issue has not yet entered the consciousness of Sephardim. In recent years, following the addition of special tests for Sephardim, young Sephardim began doing PGT, mainly those who study in Ashkenazic institutions. Yet, today only a small minority among Sephardim, less than 10%, do PGT.

### Compatibility Verification

The participants emphasized the great care DY takes to keep the results confidential. As one of the senior workers at DY explained:

Subjects' details are completely confidential. During blood work, each subject receives a personal number. This number, with the date of birth, is used to identify him in the system, which does not contain names or addresses. Moreover, subjects are not informed if they are carriers of any particular disease, but only if there is a compatibility with an intended partner, or not.

Similarly, one participant, a young Lithuanian woman who got married 2 years ago, explained: "When you call DY, they only say 'suitable' or 'not suitable.' This way, test results enable one to tell with whom he can be married, and more precisely—with whom one should not get married, but nothing beyond that."

Regarding who calls to get the information about the "genetic compatibility" (GC), i.e., the compatibility between the two intendants' numbers, and the timing of the call—this depends on the pattern of the matchmaking process, which varies from group to group. In general, since among Hasidim, parents predominantly manage the process, parents usually call DY to verify GC, and they do not bring the young people together before confirming GC. Some parents first verify the GC and only afterward will continue with the other steps of the matchmaking process. As one participant, a mother of eight, from a Hasidic court, explained:

When we receive what seems like a good proposal, we first call DY to check GC. Only then, if they approve, we continue checking the other criteria and the financial arrangements. If GC doesn't fit, what's the point of continuing?

Yet, some Hasidic parents will first check the other criteria, finalized with the parents of the other party all the financial aspects, and only then turn to check the GC. One participant, a mother of ten, also from the Hasidic stream, described: "When we are interested in someone, only in the most advanced stages, right before finalizing the match, we ask for the personal number of the other party and call about compatibility, to make sure there would not be genetic diseases."

The involvement of young people in the matchmaking process is usually greater among Lithuanians than among Hasidim, and the Lithuanian intendants get together

several times before deciding on establishing the relationship. Therefore, many young Lithuanians call DY *themselves*, but there is no one rule about it. One of the Lithuanian participants, a father of six, noted that “Among the Lithuanians, there are no rules on the matter. I recently betrothed a daughter, and we, the parents, called DY. Now our son is in the process of matchmaking, and he called DY himself.”

Some Lithuanian participants stated that calling DY is done immediately after receiving a relevant proposal, even before the first date, because “what is the point of meeting, of connecting emotionally, if later it will not be relevant”—as a Lithuanian participant, a single girl, explained.

However, others reported that they call only when “the business starts to get serious”—in their words. One of the Lithuanian participants, a single guy age 23, explained: “you go for a date, and after a few meetings if both of you have serious intentions toward each other, you call DY. I called after 2–3 meetings.”

Spharadim participants who did PGT reported similarly. One of them, a 24-year-old woman, who got married 2 years ago, said: “Spharadim have 5–7 meetings before the engagement, so at some point, in the middle of the process, I called DY.” Another participant, a Sephardic guy who got married about a year ago, said:

Our yeshiva did not invite DY to do PGT. But when I met the girl - whom I eventually married—after 2–3 meetings, we saw that it was getting serious, and since she has already done the PGT via her seminary, she asked me to do it too. I did and right after that, we checked the compatibility.

The Sephardic Rabbi participant, for whom only his younger children have done PGT, said: “If you are already doing the test, then it is better to check GC at the beginning before the two intendants start to develop any relationship.”

### **Routinization of PGT in the Haredi Community**

Although today most young Ashkenazic Haredim conduct PGT, and they consider it a trivial matter, participants revealed that initially, three decades ago, in DY’s first years, many Ashkenazic Haredim had reservations about PGT, due to their lack of familiarity with the subject. One Lithuanian participant, in his late forties, said:

When I was at matchmaking age [30 years ago], nobody thought about PGT. Who would think that you need blood work to choose a spouse? Today, with my children, PGT is taken for granted. It comes from the great rabbis, who call everyone to do it, so there is no question at all.

Many (9) Hasidic participants reported similarly. One of them, a mother of ten, said:

When PGT had just begun, we didn’t know whether to let our children do it. Doing PGT would also delay the match—because until we would receive an answer... We asked the Rebbe and he said to finalize the match without it. Five years later, and in the years that followed, all our children did PGT, and we didn’t even ask the Rebbe, as it was already routine.

PGT among Hasidim, even among the extreme circles, is perceived now as such a routine step that Hasidim do not even bother asking the Rebbe about it. The oldest participant, who affiliates with the extreme Hasidic circles, explained: “Our previous Rebbe was not enthusiastic about PGT. He did not prohibit doing it, but neither did he encourage it. The current Rebbe understands the great importance of PGT and not only legitimized it but obliges his young flock to be tested.”

Use of PGT, thus, has also entered the extreme Hasidic circles, that to this day do not recognize the legitimacy of the State of Israel as a Jewish state, and avoid cooperation with state authorities. And yet, members of these circles have completely embraced the use of PGT, due to their religious leaders.

It seems that the Haredi Ashkenazi rabbis have a central role in the routinization of PGT among their flock. While these leaders became aware of the importance of preventive strategies for reducing the incidence of genetic diseases, putting a lot of effort into assuring that all their young flocks will be tested, most Sephardic rabbis are not committed to this issue, as the Sephardic Rabbi participant explained:

Many Sephardic rabbis said that there is here a matter of *Pikuach Nefech* [preservation of life]. But this is still not enough to affect the people. In Haredi society, anything new takes time, so Sephardic rabbis also need time to digest and encourage the issue.

In accordance with these words, one of the senior employees of DY, said: “We invest a lot of effort in information activities with the Sephardic rabbis,” and this is due to the understanding that they are the key to the response of Sephardim to PGT.

### Perceptions Regarding PGT as an Expression of a Religious View

The reluctance toward PGT, at first among Ashkenazic Haredim, in the first years of DY, and now among the Sephardic today, stemmed not only from a lack of familiarity with the subject but from perceptions that conducting PGT undermines God’s role in the matchmaking process. Finding a partner is perceived in the Haredi world as “superior providence,” as a result of divine intervention. As one participant, a Hassid who has already married seven of his children, explained: “We believe that finding a match is a miracle, and—based on the Talmud [Sutta 2 p. 1]—that God’s voice announces the pairing 40 days before fetus’s creation, and everything is in the hands of God.” Therefore, relying on PGT can express, from the Haredi perspective, a lack of complete trust in God, needing approval of science in choosing a spouse. As the Sephardic rabbi participant expanded:

These are two views regarding faith. The first, saying to trust God completely, and if a person deserves torment, God will inflict torment on him regardless of doing PGT. Some great Sephardic rabbis support this view. On the other hand, there is the view of other great rabbis, saying that PGT is a *hishtadlut* [a form of endeavor, which is a term in Judaism, referring to all efforts people perform to entice divine assistance to improve their existence in this world] because suffering can be prevented by a simple test.

Some of those who support PGT settle this dialectic by attempting to minimize its influence on match selection, saying they check GC only before finalizing the match, just to be on the safe side, as was already mentioned in the second theme. Many others settle the dialectic by interpreting the GC results as an indicator from God, instructing them whether to go for the match or not. One participant, a mother of eight from the Lithuanian stream, explained: “In a match, if things have to be in a certain way, that’s how they turned out, and if there is no GC, it’s a sign from God that it’s not the right pairing.”

Another participant, a Hasid, father of 11, expressed his approach more strongly: “Everything is in God’s hands, but PGT must be done! It’s saving lives!”. According to the Sephardic Rabbi participant, and other Sephardic participants, such strategies for settling the religious dialectic are not (yet) popular among the Sephardim.

## Discussion

Participants in the current study were Israeli Haredim from the various streams. The study’s findings revealed four major themes reflecting their perceptions and experiences. The first theme refers to the process of PGT implementation and the awareness of its importance. Although the study does not claim to provide quantitative data, this theme reflects the widespread use of PGT among Ashkenazi Haredim in Israel, and that PGT is a routine step among them, in line with Raz and Vizner’s (2008) findings. In contrast to Ashkenazi Haredim, findings also show that the Sephardim are less aware of PGT’s importance, and accordingly, testing among them is much less common.

The second theme focuses on GC verification of the two intendants. It indicates differences among the various streams regarding this topic, similar to the first theme: among Hasidim, parents are the ones that call DY for verification and would not bring young people together before first confirming their GC. Whereas Lithuanians and Spharadic intendants exhibit more involvement in their own matchmaking and therefore many of them would call DY themselves. Some of their parents would call before the first meeting, and others only when it seems that there are serious intentions toward marriage.

Either way, participants from all streams emphasized the great confidentiality of DY regarding results, saying that not only does the DY system not contain information about any subject’s name or address, but a subject is not even informed whether they are carriers of any disease, which is in contrast to the other health services supplying genetic tests (Raz, 2009). This conduct of DY expresses its tremendous efforts in preventing social stigma and self-labeling of any individual as a “disease carrier” and a “second best,” understanding that only in this way would PGT be widespread, effective, and promote GC pairings.

The third theme relates to the routinization of PGT in the Haredi community, and similar to the previous themes it reflects differences between Ashkenazim and Sephardim. The findings indicate that, although now it’s routine, the widespread use of PGT among Ashkenazi Haredim was not immediate. At the beginning, Ashkenazi Haredim had reservations, similar to the current reservations of

Spharadim today, resulting from a lack of familiarity with the subject. Once the Ashkenazi Haredi leadership came to understand the importance of PGT and they called for their young people to be tested, along with the tendency of Haredim to obey their leaders (Brown, 2017), PGT permeated the Ashkenazic Haredim to the point of becoming a routine.

At the same time, findings indicate a lack of Sephardic rabbis' commitment to promoting PGT and link this conduct to low rates of Sephardim testing. These findings are supported by previous studies regarding rabbis' role in PGT implementation in particular (Raz, 2009), and in promoting health behaviors in general (Zalcborg & Zalcborg Block, 2022); and are in line with literature emphasizing on one hand the religious leaders' importance in promoting health behaviors, and on the other hand the possible negative consequences of religious leaders when their guidelines conflict with medical appropriate actions (Shapiro, 2022). Another reason for the lower rate of PGT among Sephardim is the much lower rate of certain high-profile monogenic recessive disorders (e.g., Tay Sachs) in this population compared to Ashkenazim.

Raz and Vizner (2008) see the PGT model as an expression of the broad meaning of "genetic responsibility," i.e., taking responsibility for one's self, children, and partner regarding offspring's birth, in light of one's knowledge of his genetic load. Given the rabbis' centrality in PGT's routinization among the Haredi population, the concept of "genetic responsibility" can be expanded to "community genetic responsibility" and attributed to the Haredi religious leadership.

The third theme also indicates that PGT has become routine, even among anti-Zionist groups, who do not recognize the state's authorities (Inbari, 2016). Moreover, rabbi Eckstein himself, DY's founder, affiliated with Satmar Hassidim, avowedly does not recognize the state and its institutions (Keren-Kratz, 2017). At the same time, the very use of PGT and DY's operation expressed cooperation with the "Zionist" state, as DY's staff cooperates with professionals from other state health services, and PGT is subsidized by the state. This reality reflects the gap that exists between the declared level of Haredi extreme circles, which declare their withdrawal from the Zionist state and their avoidance of using its services and benefits, and the practical level, which indicates their use of the state's services and benefits.

The fourth and last theme—perceptions regarding PGT as an expression of a religious view—points to another obstacle preventing PGT's implementation: the perception that using PGT undermines God's role in the matchmaking process, as it expresses a reliance more on science than on God. This approach, which was mentioned by Ashkenazic Haredim when PGT just began, emerges today mainly among Sephardim who still find it difficult to accept PGT. Due to the Ashkenazic Haredi leadership, most Ashkenazic Haredim realized PGT's great benefit, understanding that performing it does not express reliance on science instead of faith and confidence in God, but expresses *hishtadlut*, providing the cure before the disease.

PGT is indeed an excellent preventive strategy, as it proved itself completely. Prof. Arthur Edelman, former director of neonatology at Israel's Shaare Zedek Medical Center, noted that the rate of newborns with Tay-Sachs decreased by almost 100% among the Haredi population and also noted a very significant decrease in the

rate of newborns with the other genetic diseases. According to him, implementing PGT in Haredi society can be seen as a model for eliminating genetic diseases.

The use of PGT is also accepted among other populations outside Haredi society. The most known is the Cypriot population, which since the 1970s, does PGT for thalassemia (Prainsack & Siegal, 2006). Also, recently the national religious community in Israel is doing PGT, having been influenced by the Haredi community (Frumkin et al., 2011). However, the DY model is considered the most successful (Raz & Vizner, 2008), mainly due to the tendency of Haredim to obey their rabbis, and the norm of arranged marriage, within which each side investigates the other from the beginning, before there is a real connection between the intended couple (Zalberg Block, 2013). Thus, it paradoxically seems that it is the "unmodern" characteristics of Haredi society—obedience to rabbis and arranged marriages—that facilitates the implementation of a model that is essentially an expression of progress and modernity.

Numerous studies, while recognizing global trends of the declining importance of arranged marriage, show, in some contexts, how certain social, cultural, or political forces not only explicitly support the survival of this marriage type and sustain its popularity but actually contribute to its growth and revival (Berta, 2023). Following this, it can be said that in the context of the Haredi community, even if the PGT does not increase the pattern of arranged marriage, it undoubtedly does further its survival.

## Research Limitations and Recommendations for Future Studies

Despite the insights that emerge from the present study, it has some limitations. First, as with any qualitative study, the sample was small, and therefore, one cannot presume that the findings are representative. Second, the study may suffer from sample bias because only those willing to participate were interviewed. Third, the limited scope of the sample did not allow for quantitative analysis examining differences in participants' perceptions and experiences across socio-demographic variables and sub-sectoral affiliation. Therefore, it is suggested that a future study be conducted among a wider sample that would enable quantitative analysis — providing information on possible relationships between various background variables, especially ethnicity, and aspects related to PGT implementation. Doing so would also enable greater generalization of results to a broader Haredi population. Moreover, a future study would enable examining changes in perceptions toward PGT and the rate of testing among the Haredi population in general, and Spharadim in particular.

In light of the main influence rabbis have on their flock's health behaviors, in general, and on PGT implementation in particular, and in light of the low rates of PGT use among Sephardim, it is worthwhile to conduct an in-depth study among Sephardi rabbis, to better understand their perceptions on the subject and the barriers preventing them from promoting PGT among their congregates. On a more general level, it would be interesting to conduct a comparative study between the different populations performing PGT, regarding their experiences.

As PGT is a sort of preventive medicine, following the current study it would be interesting to learn about the introduction of other types of preventive medicine in Haredi society, such as vaccinations during the COVID-19 case; vaccinations for measles, a big challenge for health authorities trying to introduce them into certain sections of the Haredi society; and other early catch tests such as breast and colon exams.

## Conclusions

While PGT became a routine among most Ashkenazi Haredim, most Sephardim are still unaware of PGT importance and are not tested. These differences resulted from the misconceived belief among the Sephardic Haredim that genetic diseases are predominately an Ashkenazi problem because Sephardim have a much lower rate of certain high-profile monogenic recessive disorders compared to Ashkenazim, and from the fact that in the beginning of DY its PGT panel was relevant only to the Ashkenazi population, and DY succeeded in recruiting the Haredi Ashkenazic leadership to promote the issue among their flock. For Sephardim, on the other hand, the relevant PGT panel became available much later, and so also the exposure of Sephardim and their rabbis to PGT.

Since Sephardic Haredim constitute about a third of Haredim in Israel, even though only a minority of Sephardim do PGT, it is still true that the majority of Haredim in Israel are testing. This health behavior has led to a significant decrease in the proportion of Haredi newborns with genetic diseases.

Haredi society is conservative, and as such changes occur in it slowly. Thus, it can be assumed that as the penetration of PGT into Ashkenazic Haredim was a continuous process, involving cooperation of their leadership, so too the penetration into Sephardic community is a matter of time, depending to a large extent on cooperation of their leadership.

Some practical recommendations emerge from the findings: First, there is a need for a significant outreach activity among the Sephardim regarding PGT importance, particularly with their educators, matchmakers, and rabbis. To this end, it is worth recruiting both Haredi and non-Haredi health professionals, who have an influence on the educators, matchmakers, and mainly the Sephardic leadership, and create workshops explaining the great importance of PGT and the possible ramifications of not doing them. Health authorities should create a discourse between Ashkenazic and Sephardic rabbis, to remove obstructions preventing Sephardic rabbis from encouraging PGT. ALL these steps should emphasize the religious significance embedded in doing PGT.

As the Sephardic Haredim are more relatively open than the other two streams, they are making more use of online communication, including various websites for matchmaking (Zalberg Block, 2022). It would therefore be worthwhile having these matchmaking sites explain the great importance of PGT, and even incorporating test matching into these sites.

Second, it is worth trying to implement the PGT model in other populations for whom it might be applicable, such as users of online dating sites: as these users



verify a long list of details regarding an intended partner, GC can be included. Third, it is worth increasing PGT awareness among the national religious, many of whom meet a partner through an intermediary—whether a matchmaker or acquaintance.

**Author Contributions** Both authors contributed to the study conception and design. Material preparation, data collection and analysis were performed by both authors. The first draft of the manuscript was written by both authors. They also wrote the other versions of the manuscript and approved the final manuscript.

**Funding** This work was supported by The SDU-TAU Joint Institute for Jewish and Israel Studies.

## Declarations

**Conflict of interest** No authors of this paper have any conflicts of interest to report.

**Ethics approval** Exempt under university policy.

**Human or Animal Participants** The authors affirm that human research participants provided informed consent for publication.

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