

Assessment of Turkey IVF (In Vitro Fertilization) websites according to the American Society for Reproductive Medicine (ASRM)/Society for Assisted Reproductive Technology (SART) guidelines

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Abstract

Objective: To evaluate websites of in-vitro fertilisation centres in terms of standardised ethical guidelines for advertising.

Methods: The cross-sectional study was conducted in Turkey from February to April 2017. A total of 148 IVF centre websites were evaluated in terms of objective criteria in accordance with American Medical Association, American College of Obstetricians and Gynaecologists, American Society for Reproductive Medicine / Society for Assisted Reproductive. Technology guidelines for advertising. Websites were surveyed with attention paid to success rates, testimonials, sales promotions, price, psychological support offered as part of the service, regulating / certifying bodies, misleading language, and the ethical principles of autonomy, beneficence, non-maleficence and justice. Data was analysed using SPSS 23.

Results: Out of 193 centres, 148(76.7%) had active websites; 104(70.3%) private, 38(25.7%) in university hospitals and 6(4%) in state hospitals. Of them, 103(69.6%) centres used at least one example of misleading language when compared to the relevant guidelines. Among these centres, 82(79.6%) were private, 18(17.5%) university hospitals and 3(2.9%) were state hospitals.

Conclusion: A massive majority of websites related to in-vitro fertilisation centres did not follow standardised guidelines for advertising.

Keywords: Advertisement, Assisted reproductive technologies, ART, Ethics, Guidelines, In vitro fertilisation, Internet, Turkey. (JPMA 70: 421; 2020).

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Introduction

More than 6 million babies in the world¹ and approximately 42,000 babies in Turkey are born with assisted reproduction technique (ART). Turkey ranks ninth in the world and sixth in Europe on the list.² The international demand for ART services is large, with reports of 1.5 million in-vitro fertilisation (IVF) procedures being performed across 3,000 clinics worldwide each year.¹ As a result of the rapidly growing market, IVF centres are increasing in number in Turkey just as is the case with the world at large.²⁻⁴ This has led to increased competition between centres, leading to commercialization of the specific field, and a search for more effective advertising by the IVF centres. Complaints and ethical issues have been raised in many aspects,

such as the correctness and updating of information displayed on a centre's website related to service content difference, referrals to products and services, the coverage of relations between advertisers and sponsors, advertising campaigns and misleading referrals.^{5,6}

In-depth studies show that infertile couples generally choose IVF centres according to the information available on the websites of these centres.^{5,7,8} This has, therefore, caused some ethical and legal rules to be applied to websites in order to enable individuals to make their choices correctly.^{5,9,10} To minimise these problems, the American Medical Association (AMA), the American College of Obstetricians and Gynaecologists (ACOG), the Ethics Committee of the American Society for Reproductive Medicine (ASRM), and the Society for Assisted Reproductive Technology (SART) have published guidelines on what should be found on a quality IVF website, advertising / marketing techniques, and

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especially how to report the results of IVF.^{11,14} These guides provide parameters to ensure the presence of 11 characteristics: *the publication of IVF success rates; the presence of additional data to support the success rate given; the presence of advertising / marketing that ranks or compares clinics or practices based on success rate; the presence of live-birth data; the method used to calculate live-birth data; live-birth data appropriate for the time period being reported; success rate breakdown by age; success-rate breakdown by diagnosis; identification of terms comprising the numerator and denominator of the success rate; disclosure of the investigational or experimental nature of an advertised procedure; and the publication of the SART-required disclaimer: "a comparison of success rates may not be meaningful because patient medical characteristics and treatment approaches may vary from clinic to clinic."*¹¹⁻¹⁵ As for Turkey, none of the IVF centres in the country is an ASRM/ SART member, and current IVF regulations do not include any instructions on the advertising material to be used on webpages.¹⁵

The current study was planned to evaluate IVF centre websites in terms of AMA, ACOG and ASRM ethics committee / SART guidelines for advertising to survey the general characteristics of the websites, and to analyse its ethical implications.

Materials and Methods

The cross-sectional study was conducted in Turkey between February and April 2017, and comprised websites of IVF centres across the country. The website addresses of the centres were obtained by reviewing the Ministry of Health official website and websites of the private, state and university hospitals in 81 provinces in Turkey as well as the website of the Turkish Reproductive Health and Infertility Association.^{2,4} IVF centres without their own websites were excluded. We excluded claims of effectiveness for IVF itself and its associated standard treatments, freezing of sperm or eggs, donation of sperm or eggs, pre-implantation genetic diagnosis (PGD) available, and sex selection.

There were two stages in the data collection. In the first stage, the websites were audited for their marketing tactics according to the best practice guidelines of AMA, ACOG, and the ASRM ethics committee.¹¹⁻¹⁴

AMA looks for risk of public deception when using complex, hard-to-understand medical terms or images;

obligatory that the material be communicated in explicit, graspable language; implicitly be the truth; and testimonials in particular are emphasised as having increased potential for deception "when they do not reflect the results that patients with conditions comparable to the testimoniant's condition generally receive".^{7,12}

ACOG demands that *specific outcomes should rarely be advertised because the definition of success rate, the selection of eligible patients for consideration in calculating rates, and the predictive value of rates are all important in accurately assessing outcomes; they cannot be interpreted accurately by someone viewing an advertisement; maybe very confusing or misleading to the patient; terms such as "top", "world famous" or even "pioneer" usually are misleading and designed to attract vulnerable patients; all claims must be supported by valid, reproducible data, and must clearly state the method used to calculate outcomes; and must not lead patients or the public to believe that outcomes are better than they are.*^{7,13}

The ASRM ethics committee demands that the criterion of success is clearly specified; patients are fully informed of the costs; informed consent materials clearly inform patients of their chances of success, if found eligible, and the programme is not guaranteeing pregnancy and delivery; *the practice director is held responsible for the content of all advertisements; the advertisement must not lead patients or the public to believe that the chances for success are greater than they really are. The way to avoid misleading patients or the public is to report live-birth data per cycle initiated, per egg retrieval procedure and per embryo transfer along with cycle number and the mean number of embryos transferred stratified by SART age categories.*¹⁴

Strict guidelines around promotional offers when using the word "free", "two-for-1", "guarantee" or "warranty".¹¹

After the evaluation, the data was tabulated with the rubric classification of Hartman⁷ using the Dedoose program by distinguishing between State / University / Private centres. Dedoose is a web-based application for mixed-methods research, an alternative to other qualitative data analysis software.⁷

Using the advertising and publicity guidelines from the AMA, ACOG and the ethics committee of the ASRM as a rubric, a spreadsheet was created in Dedoose with the following categories to track the tactics employed and

how compared against the recommended marketing practices:

Success rates: if the site promoted their success rates, how they were described and explained (as per guidelines);

Testimonials: the use and nature of testimonials and appearance of any disclosures;

Sales promotions: the use of sales promotions, money-back guarantees or warranties;

Price: prices per treatment listed and transparency of costs;

Psychological: the support offered as part of their service;

Regulating/certifying bodies: any evidence of third party certification; and

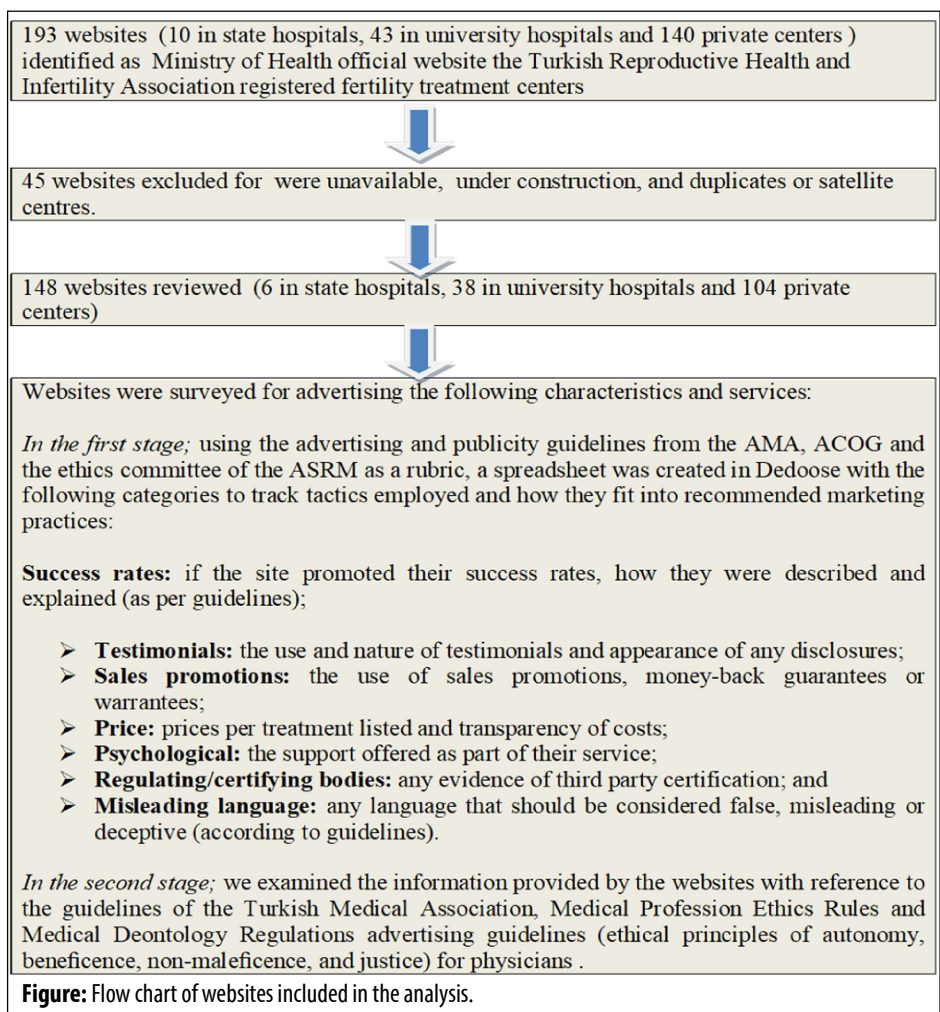
Misleading language: any language that should be considered false, misleading or deceptive.⁷

In the second stage, the study examined the information provided by the websites with

reference to the guidelines of the Turkish Medical Association (TMA), Medical Profession Ethics Rules and Medical Deontology Regulations advertising guidelines (ethical principles of autonomy, beneficence, non-maleficence, and justice) for physicians.^{16,17} Data was analysed using SPSS 23.

Results

Out of 193 centres, 148(76.7%) had active websites; 104(70.3%) private, 38(25.7%) in university hospitals and



6(4%) in state hospitals. Of them, 103(69.6%) centres used at least one example of misleading language when compared to the relevant guidelines. Among these centres, 82(79.6%) were private, 18(17.5%) university hospitals and 3(2.9%) were state hospitals (Table-1). Certain advertising tactics, such as inadequate information, misleading, hinting at superiority, and unfair advantages, were found to be violative of the principles of autonomy, benefit, non-maleficence, and justice on the websites (Table-2).

Table-1: The IVF center websites evaluated according to AMA, ACOG, and ASRM ethics committee guidelines..

IVF Centres	Success rates	Testimonials	Sales promotions	Price	Psychological support	Regulating/certifying bodies	Misleading language
State (n:6)	0	0	0	0	0	0	3
University (n:38)	1	2	0	0	2	3	18
Private (n:104)	1	24	4	1	24	6	82
Total*	2	26	4	1	26	9	103
(n:148)	(1.35)	(17.6)	(2.7)	(0.7)	(17.6)	(6.1)	(69.6)

*Data presented as n (%). IVF: In-Vitro Fertilisation, AMA: American Medical Association, ACOG: American College of Obstetricians and Gynaecologists, ASRM: American Society for Reproductive Medicine

Table-2: Some examples of marketing strategy on In-Vitro Fertilisation (IVF) center websites violating ethical rules.

Marketing strategy	Sample ad tactics	Ethical aspect (autonomy, beneficence, non-maleficence, justice)
The first and only	The first centre in Turkey Accepted as the reference centre in many countries in the world The best, the largest, the most modern, the latest, the top, the most successful, the most advanced, the oldest and the most established clinic One of the most respected organizations worldwide An important centre in the world An outstanding centre in Turkey and the world The first and only centre certified..... Leader in the world and in Turkey	Inadequate information, misleading, hinting at being superior to others, gaining unfair advantage = violation of autonomy, criminal, nonmaleficence, and justice principles
Technology/Information	World-class technology/ latest technology / top technology / Chance to be treated with an advanced infrastructure and technical equipment Various treatment options accepted internationally An important reference centre in the field Appeals to all countries, Central Europe, Asia and the Middle East Experienced, strong and worldwide team Turkey's best tube baby team Infertility is removed with new technologies Has the best service centre award	
Promotions for Patients	Arranging hotel service Direct return ticket and airport pick-up 7/24 service/ Five star service Discounted accommodations Hotel accommodations, half-board accommodations in a 5-star hotel Free Psychological and Nutritional counseling support Free tube baby treatment books Free tube baby adventure trainings Free infertility scan	
Success	Pregnancy and success rate above the world average The only solution centre for repeated tube baby failures Infertility is not desperation anymore / Revolution in female / male infertility The centre of difficult cases / Miraculous A baby is born every..... hours The studies carried out jointly with the world's leading genetic centres The reference centre in Turkey and in the world in its field Leading practices that raise the level of treatment We realize the dream of being a parent	
Financial	The cheapest uninterrupted service Honest service and honest price policy Best prices Credit / Credit card usage / Installment payment A quality economic centre The possibility to submit the technology without reflecting the additional cost.	
Testimonials	In-vitro fertility prices for every family The most stress-free way to pay A personalized tube baby centre Tube baby patient stories and videos Photos of born babies Couple photos Relaxation meetings for the journey to motherhood We are here to realize your dreams We are the biggest family in Turkey withbabies See new members joining our family every.....hours	

Discussion

The infertile couple naturally first searches for success rates when selecting an IVF centre.^{18,19} In this study, only 2 centres gave success rates without specifying any details. However, the majority referred to their success rates using misleading language such as "pregnancy and success rates above the world average", "the centre for difficult cases", "the only solution centre for repetitive tube baby failures", "infertility does not mean desperation anymore". With these advertising tactics, people can believe that pregnancy can be achieved at a higher rate with IVF. However, according to both ASRM / SART and the ACOG guidelines, advertisements should not try to convince patients more than their real chance of success, and the methods used to calculate the success rate should be clearly stated.^{11,13,14} Nevertheless, studies in different countries, including this study, have shown that websites are not following the ASRM / SART guidelines for advertising.^{7,9,20,21}

According to ACOG's advertising guidelines, terms such as "top", "world famous" or even "leader" are usually misleading and designed to attract vulnerable patients.¹³ As in this study, the fact that most of the IVF centres declare a product feature as merely a feature of "their own" by using deceptive advertising tactics such as "an outstanding centre in Turkey and in the world", "the leader in the world and in Turkey", "the most modern, the latest, the best, the most successful," by exploiting people's trust and lack of experience and knowledge can be misleading. With these expressions stating that they are different from the other IVF centres and providing the

creation of demand,^{22,23} IVF centres suggest the existence of a great number of alternative techniques and explain

therapeutic support elements as if they were miraculous new techniques leading to success and they claim that they are available "in their own centres."²⁴

Since IVF administration is a costly procedure, it requires couples to select proportional treatment protocols and centres with their financial situations. Prior studies have reported that the transparency of prices is an important factor in consumer decision-making about an IVF centre.^{18,19} According to the ASRM /SART guidelines, patients should be fully informed of the costs, prices per treatment listed, the transparency of costs and the use of sales promotions, money-back guarantees or warranties.^{15,18,19} In Hartman's⁷ study, only 13 of the 35 centres' websites reported treatment prices. In this study, one centre specified a price on the website, but it used misleading statements such as "the cheapest uninterrupted service", "the best price", "the best prices for a tube baby for each family", and "the most stress-free way to pay."

According to ASRM / SART 2004, psychological support is offered as a part of services¹¹ because it supports patients during the IVF treatment process, which is an important source of motivation affecting treatment.⁹ In this study, however, only 26 of the centres stated that they provided psychological support service as a promotion on their website. However, when choosing the IVF centre, statements suggesting couples benefit from the promotion of "free infertility screening/ counselling / psychological and nutritional counselling support", "hotel accommodations", "direct return ticket", "transportation and transfer service" might prevent them from making decisions about the right centre where the medical intervention will be performed.^{6,24} This approach may prevent couples from obtaining the highest achievement in their IVF treatment. Unlike this study, in Hartman's study,⁷ 8 websites included support as part of their services.

Some clinics used photographs or references with the aim of increasing the value and trustworthiness of their centres in the eyes of prospective clients. AMA discourages the use of testimonials in medical practice marketing, as it is considered deceptive.¹² In this study, 26 of the 148 IVF centres had photographs, letters, and videos of smiling pregnant women, couples and happy babies that were professionally taken and which could affect the perceptions of couples. In two different studies conducted in a similar way, the centres shared photos,

stories, letters and videos of couples of unusual cases but they did not show clearly whether they were their own patients or not.^{7,9} Moreover, the International Organisation for Standardization (ISO) 9001: 2000; 2009; 15189 was mentioned in 9 of the clinic sites as an important demonstration of a commitment to quality management principles. However, such documentation is neither an indication of success for IVF nor an indication of the country's compliance with the regulations in this field. It gives a false sense of trust, since the consumer is not fully aware of what the certification means and that in general, there is a lack of international regulating bodies on ART.

In the Internet healthcare sector, individuals do not possess a specialist's knowledge to make informed decisions and are unable to place rational value judgments on services offered.^{23,25} Using this ignorance as an advantage is included in the scope of ethical violation.²³ A vulnerable group such as those suffering from infertility are actively searching for reliable information to support them in their decision-making and achieving goals.⁷ Thus, in a system in which ethical codes are not considered, individuals may be misled, misinformed and influenced. In a study carried out with IVF centres in Turkey, 90% responded to the question, "Are the competition methods (media descriptions, promotions, price breaks and third party associations or groups) of the IVF centres ethical?" by stating, "No."²⁴ In one study,⁶ it was stated that the advertisements of the majority of the IVF websites tend to mislead the patient and only 16.6% behave in accordance with ethical principles. In this study, the advertisements of IVF centre websites were in contradiction with the principle of respect for autonomy and efficacy and they indirectly caused harm to the principle of justice because an individual cannot be expected to make the right decision by looking at advertisements about his own diagnosis and treatment. Advertising with misleading and exaggerated expressions can prevent the individual from freely choosing and may influence his or her decision to make an autonomous decision. An individual who cannot make an autonomous decision may lose time, be misguided or get poor quality healthcare. In addition, misleading information in advertisements may cause individuals to be harmed by causing panic or unnecessary hopes. All of these situations indirectly impair the ability of individuals to attain equal and quality

service, and the justice principle may suffer.²³

The current study is the first in Turkey to assess IVF clinic website quality according to AMA, ACOG and ASRM / SART guidelines for advertising. It is certainly possible that IVF centres do not intend to mislead individuals with their advertisements, and that many of them may not be aware of these rules. Therefore, if all international and country-specific authorities follow ethical codes similar to the SART, AMA, ACOG guidelines to prevent unintentional misleading communications, this will help protect the consumer. It is also imperative that international governing bodies find a way to universalise the best practice website communication and marketing standards.

Conclusion

Private IVF centres used more misleading language and the majority of IVF centres did not follow the AMA, ACOG and ASRM / SART guidelines for advertising.

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