# Improving contraceptive choice for military servicewomen: better provision serves both women and deployment planning

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When it comes to contraception, we know that reducing barriers related to cost is accompanied by increased uptake of women's preferred methods and, in particular, increased uptake of the most effective modern forms of reversible contraception, namely long-acting reversible contraception (LARC).[1] LARC methods, such as intrauterine devices and subdermal hormonal implants, have the advantage of being user-independent in achieving extraordinary effectiveness. Yet, the most commonly used modern form of hormonal birth control remains the contraceptive pill, which is highly user-dependent with adherence directly impacting effectiveness.

For any contemporary health system, the importance of supporting access to the full spectrum of common contraceptive methods, including LARC, can be argued both from a reproductive autonomy and a public health perspective. But for women in the military, actively serving in defence of a nation and potentially in combat zones, the imperative and value is likely magnified. In this journal issue, a situation far from this ideal is presented and explored in the work by Rottenstreich *et al*. entitled 'Adherence to no-cost oral contraceptives among active-duty servicewomen'.[2] This study describes oral contraceptive use in the Israeli military, a young population in a particular situation where this method alone was offered by their healthcare system at no-cost.

This 'Hobson's choice', where contraceptive 'options' means a single, 'take it or leave it' method, unsurprisingly does not meet servicewomen's needs. Using prescription fulfilment data, the authors convincingly demonstrate that oral contraceptive adherence and continuation is paltry. While one-quarter of servicewomen ever fill a prescription for oral contraceptives during their military service, among them only one in seven show evidence of adequate adherence (medication possession ratio of at least 90%), and only one in ten continue use for a full year. Servicewomen in combat roles or with low education showed the lowest adherence.

The specific demographics and effect sizes presented by Rottenstreich *et al*[2] may not be generalisable outside Israel and this specific population of young women in compulsory military service, but the key finding that consistent and ongoing adherence to oral contraception is low is unfortunately common.[3] The setting described presents a unique lens through which we can further appreciate the importance of access and choice in contraception.

This article clearly demonstrates that a 'one size fits all' approach to contraception is not correct for this population. Arguably, such an approach is not appropriate for any population. However, this methodology is unable to shed light on why women discontinued contraceptive pills, nor clarify if women instead turned to self-paid methods, either low-cost (eg, condoms, emergency contraception) or high-cost (eg, LARC). The relevance of these unanswered questions is highlighted by comparison to what is known from the US military, where all common forms of short-acting and long-acting contraception alike are offered at no-cost. While the fraction of US servicewomen who use oral contraceptives, 28%,[4] is nearly identical to that reported in the Israeli military, this is only one part of the larger picture. According to US Department of Defense contraceptive trends from 2012 through 2016, over three-quarters of US servicewomen used some form of contraception, and LARC use steadily increased from 17% to 22%,[4] up from 12% 5 years prior.[5] During this same time period, oral contraceptive use declined, and non-adherence climbed (as indicated by

>30-day gaps between prescriptions) from 18% to nearly 50%.[4] These findings plausibly suggest that to a degree LARC is substituting for, and driving a move away from, short-acting methods.

Despite being relatively a fit and young population with above average access to healthcare, servicewomen face distinct reproductive challenges and occupational hazards. Contraception and pregnancy planning carry implications both for the individual and for collective military readiness, and unintended, or mistimed pregnancy during military service can entail grave consequences for both.[6] Deployment can increase pregnancy health risks, especially where access to diagnosis and treatment of common complications such as ectopic pregnancy or bleeding are delayed, due to limited access to medical services in the field. Unplanned pregnancy negatively affects troop readiness as pregnant women are not eligible for deployment and, once pregnant, must be evacuated if already in a combat zone. In one large US Army brigade followed over 15 months of combat deployment to Iraq, 11% of the female contingent was medically evacuated for pregnancy-related indications.[7]

The full spectrum of contraceptive options offered by the US military health system is appropriate, and commendable when viewed alongside the alternative presented by the study by Rottenstreich *et al*. Nonetheless, coverage alone is not adequate to ensure access. Pioneering qualitative and survey research over the last decade[8–10] explores US servicewomen's reproductive experience and suggests important potential barriers, including education and systems issues: while US servicewomen most commonly rely on short-acting methods, many also feel such methods are not well-suited to deployment. One-third reported they lacked access to the contraceptive method they wanted for deployment, more than 40% reported difficulty obtaining refills while deployed, and the majority described a lack of pre-deployment counselling by military medical providers about options for either pregnancy prevention or menstrual suppression.[8 9] Optimistically (and consistent with the positive trends in the administrative data[4]), the most recent qualitative study of barriers and facilitators to accessing contraception found most US servicewomen had positive feelings about the services offered by the military and noted that providers were easily accessible, attentive, and willing to share information.[10]

Administrative data are useful in documenting the problem but must be complemented with other (mixed) methods to understand how best to reduce barriers to ideal contraceptive care. Unfortunately, within the scientific literature we are not aware of analogous research exploring Israeli servicewomen's reproductive experience, preferences, or barriers to autonomy in contraceptive care. Rottenstreichs *et al*.'s use of prescription data to evaluate oral contraceptive use in the Israeli Army is a good start for framing the problem, and can be taken as a clear call for policy change – indeed, recent commentary by the Israeli's military Medical Corp suggests early change is underway.[11] But policy and programmatic changes need more than quantitative administrative outcomes to guide its architecture and implementation. The unexplained poor adherence to oral contraceptives highlights the value of mixed methods (qualitative methods combined with quantitative outcomes) to understand and clarify the nuances of unmet contraceptive needs of these young servicewomen. If we don't ask soldiers what they need, they won't tell us.

Any military medical system responsible for the health and readiness of a young generation of servicewomen should ideally aspire to provide autonomy and choice of contraception at no-cost, with timely access, appropriate counselling and education, and with particular attention to which methods best meet their specific occupational demands. This should include the most effective forms of reversible contraception, namely LARC.

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