Daf Ditty Yoma 82: The Pregnancy and Pikuach Nefesh

The overriding commandment is that of 'Pikuach Nefesh" obligation to save a life in jeopardy even to the extent of violating other commandments.



תרי חנוכי הוו: כותני עוברה שהריחה מאכילין אותה עד שתשיב נפשה הולה מאבילין אותו ע"פ בקיאין ואם אין שם בקיאין מאבילין אותו על פי עצמו עד שיאמר די: גמ׳ ת׳ר עוברה שהריחה בשר קודש או בשר חויר תוחבין לה כוש ברופכ ומניחזן לה על פיה אם נתיישבה דעתה מומב ואם לאו מאבילין אותה רומכ עצמה ואם נתיישבה דעתה מומב ואם לאו מאבילין אותה שומן עצמו שאין לך דבר שעומד בפני פקוח נפש יחוץ מע״ז וגילוי אותה שומן עצמו שאין לך דבר שעומד בפני פקוח נפש יחוץ מע״ז וגילוי אותה שומן עצמו שאין לך דבר שעומד בפני פקוח נפש יחוץ מע״ז וגילוי אותה שומן עצמו שאין לך הבר שעומד בפני פקוח נפש יחוץ מע״ז וגילוי אותה שומן עצמו שאין לך הבר שעומד בפני פקוח נפש יחוץ מע״ז וגילוי יש לך אדם שגופו הביב עליו מממונו לכך נאמר בכל נפשך ואם יש לך אדם שממונו חביב עליו מגופו לכך נאמר ובכל מאדך גילוי עריות **מַתְנִי'** עוּבְּרָה שֶׁהֵרִיחָה — מַאֲכִילִין אוֹתָהּ עַד שֶׁתָּשִׁיב נַפְשָׁהּ. חוֹלֶה — מַאֲכִילִין אוֹתוֹ עַל פּּי בְּקִיאִין, וְאָם אֵין שֶׁם בְּקִיאִין — מַאֵכִילִין אוֹתוֹ עַל פּי עַצְמוֹ עַד שֶׁיּאמַר דַּי.

MISHNA: With regard to a **pregnant woman who smelled** food and was overcome by a craving to eat it, **one feeds her until she recovers**, as failure to do so could lead to a life-threatening situation. If a person is **ill** and requires food due to potential danger, **one feeds him according to** the advice of medical **experts** who determine that he indeed requires food. **And if there are no experts there, one feeds him according to his own** instructions, **until he says** that he has eaten **enough** and needs no more.

גְּמָ׳ תְּנוּ רַבְּנַן: עוּבְּרָה שֶׁהֵרִיחָה בְּשֵׁר קוֹדָשׁ אוֹ בְּשֵׁר חֲזִיר — תּוֹחֲבִין לָה כּוּשׁ בְּרוֹטֶב, וּמַנִּיחִין לָה עַל פִּיהָ, אָם נִתְיֵישְׁבָה דַּעְתָּה — מוּטָב, וְאָם לָאו — מַאֲכִילִין אוֹתָה רוֹטֶב עַצְמוֹ, וְאָם נִתְיֵישְׁבָה דַּעְתָה — מוּטָב, וְאָם לָאו — מַאֲכִילִין אוֹתָה שוּמָן עַצְמוֹ. שָׁאֵין לְדָ דָּכְר שֶׁעוֹמֵד בִּפְנֵי פִּקּוּחַ נֶפֶשׁ, חוּץ מֵעֲבוֹדָה זֶרָה וְגִילוּי עֲרָיוֹת וּשִׁפִיכוּת דַּמִים.

GEMARA: The Sages taught in a *baraita*: With regard to a pregnant woman who smelled consecrated meat or pig meat and craved those specific foods, one inserts a thin reed into the juice of that item and places it on her mouth. If her mind become settled with that, it is well. And if not, one feeds her the gravy itself of that forbidden food. If her mind becomes settled with that, it is well. And if not, one feeds her the fat of the forbidden food itself, as there is no *halakha* that stands in the way of saving a life except for the prohibitions against idol worship, and forbidden sexual relationships, and bloodshed.

עֲבוֹדָה זְרָה מְנָלַן — דְּתַנְיָא, רַבִּי אֱלִיעָזֶר אוֹמֵר: אִם נָאֱמַר ״בְּכָל נַפְּשְׁדֶ״, לְמָה נָאֱמַר ״בְּכָל מְאֹדֶדֶ״? וְאִם נָאֱמַר ״בְּכָל מְאֹדֶדֶ״, לְמָה נֶאֱמַר ״בְּכָל נַפְשְׁדֶ״?

The Gemara clarifies: With regard to the *halakha* that the prohibition against **idol worship** takes precedence over saving one's life, **from where** do **we** derive this? As it was taught in a *baraita* that **Rabbi Eliezer says: If it is stated:**

- ה וְאָהַבְהָ, אָת יְהוָה אֶלֹהֶיף, בְּכָל 5 And thou shalt love the LORD thy God with all thy heart, and with all thy soul, and with all thy might.

Deut 6:5

"And you shall love the Lord your God with all your heart, and with all your soul" why is it stated in the continuation of the verse: "And with all your might" (Deuteronomy 6:5)? And if it is stated: "With all your might," why is it stated: "With all your soul"? One of these statements appears to be superfluous.

אָם יֵשׁ לְךָ אָדָם שֶׁגוּפּוֹ חָבִיב עָלָיו מִמְּמוֹנוֹ — לְכָךְ נָאֱמַר ״בְּכָל נַפְּשְׁדֶ״, וְאָם יֵשׁ לָדְ אָדָם שֶׁמָּמוֹנוֹ חָבִיב עָלָיו מִגוּפּוֹ — לְכָדְ נָאֱמַר ״וּבְכָל מְאֹדֶדֶ״.

Rather, it is to teach that if there is a person whose body is more beloved to him than his property, therefore it is stated: "With all your soul." The verse teaches that one must be willing to sacrifice his life to sanctify God's name. And if there is a person whose property is more beloved to him than his body, therefore it is stated: "With all your might." Rabbi Eliezer understands the phrase "with all your might" to mean: With all your possessions. Therefore, one must be prepared to forfeit his life rather than be saved through idol worship.

גּילּוּי עֲרָיוֹת וּשְׁפִיכַת דָּמִים מְנָא לַן — דְּתַנְיָא, רַבִּי אוֹמֵר: ״כִּי כַּאֲשֶׁר יָקוּם אִישׁ עַל רֵעֵהוּ וּרְצָחוֹ נֶפֶשׁ כֵּן הַדְּבָר הַזֶּה״. וְכִי מְה עִנְיָן לְמַדְנוּ מֵרוֹצֵחַ לְנַעֵרָה הַמָאוֹרָסָה?

§ With regard to the concept that one must surrender his life rather than have **forbidden sexual** relations or shed blood through murder, from where do we derive this? As it was taught in a *baraita* that Rabbi Yehuda HaNasi says: It is stated about the rape of a betrothed woman:

כו וְלַנְעָרָ לֹא-תַעֲשֶׂה דָבָר, אֵין לַנַעָר הַטָּא מֶוֶת: כִּי כַּאֲשֶׁר יָקוּם אִישׁ עַל-הַעָהוּ, וּרְצָחוֹ נָפֶשׁ--כֵּן, הַדְּבָר הַזֶּה. **26** But unto the damsel thou shalt do nothing; there is in the damsel no sin worthy of death; for as when a man riseth against his neighbor, and slayeth him, even so is this matter.

Deut 22:26

"For as when a man rises against his fellow and slays him, even so is this matter"

One might ask: What idea did we learn about a betrothed woman from a murderer? The *halakha* of a betrothed woman is clear; what new point is learned by comparing it to the *halakha* of a murderer?

אֶלָּא: הֲרֵי זֶה בָּא לְלַמֵּד, וְנִמְצָא לָמֵד: מְה נַעֲרָה הַמְאוֹרָסָה נִיתָּן לְהַצִּילְה בְּנַפְּשׁוֹ — אַף רוֹצַתַ (כּוּ׳). מָה רוֹצַת יֵהָרֵג וְאַל יַעֲבוֹר — אַף נַעֵּרָה הַמָאוֹרָסָה יֵהָרֵג וְאַל יַעֵּבוֹר.

Rather, this *halakha* about the murderer, which appears to **come to teach** about the betrothed woman, is found to actually be the **subject of teaching**. The inference is as follows: Just as with regard to the betrothed woman, permission is given to save her at the cost of the life of her attacker, so too, the murderer may be saved from committing the crime at the cost of his life, i.e., one may save the victim by killing the attacker. Another teaching is derived in the opposite direction, from the case of murder to the case of rape. Just as the murderer is subject to the *halakha* of let him be killed, and let him not transgress, i.e., one must even allow himself to be killed rather than take the life of another, so too, a man must surrender his life rather than engage in forbidden sexual relations with a betrothed young woman. By inference, the *halakha* of let him not transgress, applies to all forbidden sexual relations.

וְרוֹצֵחַ גּוּפֵיהּ מְנָא לַן? סְבָרָא הִיא: דְּהָהוּא דַּאֲתָא לְקַמֵּיהּ (דְּרָבָא), אֲמַר לֵיהּ, אֲמַר לִי מְרֵי דּוּרַאי: קּטְלֵיהּ לִפְלָנְיָא, וְאִי לָא — קָטֵילְנָא לְדְּ. אֲמַר לֵיהּ: נִקְטְלָדְ וְלָא תִקְטוֹל. מַאי חָזֵית דִּדְמָא דִּידָדְ סוּמָק טְפֵי? דִּילְמָא דְּמָא דְהָהוּא גַּבְרָא סוּמָק טְפֵי!

The Gemara asks: And with regard to the murderer himself, from where do we derive this *halakha* that he should be killed rather than transgress the prohibition against murder? The Gemara answers: It is derived through reason, as it was told: A certain person came before Rava. He said to Rava: The master of the village where I live said to me: Kill so-and-so, and if you do not do so, I will kill you. What should I do? Rava said to him: Let yourself be killed, and you should not kill. Rava reasoned: What did you see to make you think that your blood is redder and more important than his? Perhaps the blood of that man is redder, and he is more important than you. If so, it is logical that one must not kill another person to save himself.

הָהִיא עוּבָּרָה דְּאָרַחָא, אֲתוֹ לְקַמֵּיה דְּרַבִּי, אֲמַר לְהוּ: זִילוּ לְחוּשׁוּ לַה דְּיוֹמָא דְכִיפּוּרֵי הוּא. לְחוּשׁוּ לָה וְאִילְחִישָׁא. קָרֵי עֲלֵיה: ״בְּטֶרֶם אֶצְרְדָ בַבֶּטֶן יְדַעְתִידְ וְגוֹ״. נְפַק מִינַּה רַבִּי יוֹחָנָן. § With respect to a pregnant woman who smells food, it is told: A certain pregnant woman smelled a food and craved it. Those involved came before Rabbi Yehuda HaNasi to ask how to proceed. He said to those who were inquiring: Go and whisper to her that today is Yom Kippur. They whispered to her, and this whispering helped; she stopped craving the food. Rabbi Yehuda HaNasi read this verse about the baby she was carrying:

, דְּטֶרֶם אצורך (אֶצָרְדָ) בַבֶּטֶן יְדַעְתִידָ, 5 Before I formed thee in the belly I knew thee, and before thou camest forth out of the womb I sanctified thee; I have appointed thee a prophet unto the nations.

Jer 1:5

"Before I formed you in the belly I knew you, and before you came forth out of the womb I sanctified you" and indeed, the baby who came out of that woman was Rabbi Yoḥanan.

Summary

3) MISHNAH: The Mishnah discusses fasting for people who are sick and women who are pregnant.

4) Violating the Torah to save a life

A Baraisa presents the general approach one would take as far as violating the Torah to save a life. It also teaches that the three cardinal sins of idolatry, illicit relations and murder may not be violated even to save a life.

A source is identified for each of the three cardinal sins that teaches that it may not be violated even to save a life.

5) A pregnant woman who craves food

Two incidents related to pregnant women craving food

We begin with a Mishna that could have been written today: How can we not afflict the children on Yom Kippur and yet train them on or two years in advance (of adulthood) so that they will be used to fulfilling the mitzvot?¹

The Gemara begins by stating that one year of training is for weak children while healthy children begin training two years in advance.

Three opinions:

¹ https://dafyomibeginner.blogspot.com/search?q=yoma+82

Rav Huna speaks to girls:	at ages 8/9, training for several hours
	at ages 10/11, complete the fast by rabbinic law
	at age 12, complete the fast by Torah law
Rav Nachman speaks to boys:	at ages 9/10 training for several hours
	at ages 11/12 complete the fast by rabbinic law
	at age 13 complete the fast by Torah law
Rabbi Yochanan asserts that the	ere is no fast by rabbinic law.

Instead, at ages 11 and 12, girls prepare to fast by fasting for several hours, completing the fast at age 12 by Torah law.

The rabbis then argue whether healthy children are intended to complete the fast two years in advance of the age of maturity; feeble children are then intended to complete the fast one year in advance. A difficulty arises with regard to rabbinic law. If Rabbi Yochanan is right and rabbinic law does not apply, how can we agree with everyone's reasoning for preparing all children two years in advance? And how do we measure whether or not a child completed their obligation to train - to become familiar with the feeling of afflicting oneself?

Notes teach us that in antiquity, the rabbis argued whether and when children under the age of majority should complete the fast by rabbinic law. The exact age of the child is vital in these arguments. In another note referring to current halacha, we learn that while children under age 9 are never allowed to fast, children between 9 and 11 years of age should be encouraged to learn to fast. By age 12 for girls and 13 for boys, they are obligated to fast.

However, if they are not physically mature, they complete the fast to comply with rabbinic law only. And so even very physically immature (ie. not CLOSE to being ready for physical adulthood, not to mention emotional adulthood) girls will fast at age 12, and they may or may not know that when they 'afflict their souls' they do so based on rabbinic law rather than Torah law.

Our next Mishna focuses on vulnerable populations. Pregnant women's cravings should be satiated lest they lead to life-threatening situations. Sick people are fed according to medical experts. If no medical expert is available, sick people are allowed to eat until they themselves determine that they do not need more food.

A fabulous instruction in the Gemara: if a woman craves forbidden food², including consecrated meat or even pork, she is offered a thin reed dipped in the juice of that food. If that does not meet her craving, she is offered gravy. And if that is not enough, she is offered fat of the forbidden

 $^{^{2}}$ The craving is said to come from smelling a forbidden food. The Ba'al Halachot Gedolot suggests that we are concerned with the health of the fetus, but the Rambam asserts that we are mainly concerned with the health of the mother. She is fed bit by bit until she feels that she has had enough. The look on her fact tells us whether or not this is a strong craving, and a whisper of "it is Yom Kippur" is not enough to calm her.

food. This because her life could be in jeopardy, and nothing comes before saving a life except for idol worship, forbidden sexual relations, and murder.

The Gemara turns to the question of idol worship. How can this prohibition supercede saving someone's life? Rabbi Eliezer is quoted in a baraita: Deuteronomy 6:5 tells us that "you will love the Lord your G-d with all of your heart and with all of your soul"... and then "with all of your might". which one of these statements is superfluous? The baraita suggests that "might" refers to possessions, so that if a person actually loves his/her possessions more than his/her life (as one might in old age, where money is the only way to find food and shelter), s/he still must give his/her life before worshipping a false G-d.

We learn about connections between forbidden sexual relations and murder: in halacha regarding a betrothed woman who is raped, the rapist may be killed as he is committing a forbidden sexual act. Even murder is allowed in order to prevent a forbidden sexual relation.

We learn that someone came to Rava, saying that the master of this person's village said "Kill this other person or I will kill you." Rava siad that he should let himself be killed: "What did you see, that your blood is redder? Perhaps the other man's blood is redder." We never know the importance of anyone else's life. It is not our job to decide who should die. It is not logical, therefore, to take a life for this reason.

Our daf ends with the story of a pregnant woman who craved food on Yom Kippur and others approached Rabbi Yehuda HaNasi asking for help. He told them to whisper to her that "today is Yom Kippur" - they did this and it helped. Later, he read a verse that suggested that the fetus was known and sanctified already (Jeremiah 1:5).

The resulting baby was in fact Rabbi Yochanan. Well, not as a baby (I can picture an infant dressed as Rabbi Yochanan would dress).

Another pregnant woman smelled food and others came to Rabbi Chanina for help. Similarly, he suggested that they whisper to her that it was Yom Kippur. Later, he read a verse from Psalms (58:4) suggesting that the baby was already estranged while in the womb. I truly hope that this woman did not hear that reading. The baby who emerged was Shabbetai, the hoarder of fruits, charging more for his wares during a famine.

Our daf offers a number of opportunities for personal agency and intercession. A pregnant woman and an ill person are able to communicate their own needs. Granted, for the most part others are evaluating the depth of those needs, but to have a say at all regarding how much we afflict our souls on Yom Kippur is significant.

THE BABY'S CRAVINGS IN THE MOTHER'S WOMB

Rav Mordechai Kornfeld writes:³

The Mishnah (82a) states that if a pregnant woman develops a craving for food she smells on Yom Kippur, she may eat until her spirit is revived. The Gemara relates two such incidents. In the first, Rebbi was asked what should be done for a pregnant woman who smelled food and craved it on Yom Kippur. He responded that they should whisper into her ear that it is Yom Kippur (in the hope that the fetus would hear and stop craving the food, -Rashi). They did so, and her craving subsided. Rebbi described her unborn baby with the verse, "Before I formed you in the stomach, I recognized you, and before you left the womb I sanctified you" (Yirmeyahu 1:5). That child became the righteous and holy Rebbi Yochanan.

In another incident, Rebbi Chanina similarly ruled that they should whisper into the ear of a pregnant woman who craved food she had smelled that it is Yom Kippur. This time, however, her craving did not abate, and they had to feed her in order to prevent danger to her life. Rebbi Chanina referred to the unborn child with the verse, "The wicked are estranged from the womb" (Tehilim 58:4). That child turned out to be the wicked Shabsai who hoarded produce and drove prices up and caused many people to suffer.

The Acharonim have several insights about the incidents recorded by the Gemara.

(a) Why did Rebbi apply the verse, "... before you left the womb I sanctified you," to this child? In what way did the unborn child demonstrate "Kedushah," sanctity, and in what way did Rebbi Yochanan stand out as being especially holy after he was born?

Likewise, why did Rebbi Chanina choose the verse, "The wicked are estranged from the womb," to describe the fetus which did not give up its craving? What does that verse have to do with the specific act of the unborn child?

(b) The Gemara in Sanhedrin (91b) states that a person acquires a Yetzer ha'Ra only at the moment he exits his mother's womb. How could Rebbi and Rebbi Chanina declare an unborn child a Tzadik or Rasha?

With regard to the righteous child, the **TOSFOS YOM HA'KIPURIM** explains that the Gemara in Ta'anis (10a) says that "one who fasts is called Kadosh" (because he separates himself from worldly pleasures). Rebbi saw that the unborn child was Kadosh because he abandoned his craving for food. During his lifetime, Rebbi Yochanan was known for his attribute of Kedushah. The Gemara relates that he was able to sit by the Mikvah and instruct women how to immerse themselves, without fear that his Yetzer ha'Ra would be aroused (Berachos 20a). The Gemara in Yevamos (20b) teaches that one who is not attracted to sensual lusts is considered Kadosh.

³ https://www.dafyomi.co.il/yoma/insites/yo-dt-082.htm

The **TOSFOS YOM HA'KIPURIM** and the **VILNA GA'ON** point out that the verse which Rebbi Chanina quoted with regard to the second child continues, "He does not listen to the voice of the whisperers" (Tehilim 58:6). These words allude to an unborn child who does not listen when someone whispers to him that today is Yom Kippur and he continues to crave for food. The unborn child in this incident did not listen to the whisperers and insisted on fulfilling his lustful desires. When he grew up, Shabsai was unable to curb his lust for money, and he oppressed the poor by hoarding the produce and raising the prices.

The **TOSFOS YOM HA'KIPURIM** explains that the Gemara in Sanhedrin means that the Yetzer ha'Ra only begins to *rule* ("Sholet") over a person after he is born. Even before he is a born he *has* a Yetzer ha'Ra, and it was the presence of that Yetzer ha'Ra which influenced the unborn child to eat.

Alternatively, **HA'GA'ON RAV SHLOMO WOLBE** zt'l (Alei Shur II:182) explains that the first child exhibited the ability to change his natural tendency, while the second child did not even exhibit the ability to suppress his desires. Since the essence of a Tzadik is the ability to change one's natural tendency, and a Rasha is one who gives in to his desires, the Gemara applies these appellations to the fetuses who exhibited those traits (and not because they actually were held accountable for their actions in utero).

(The **SEFER CHASIDIM** (#1137) describes the extremely rare occasions on which a child *can* be dominated by his Yetzer ha'Ra before he is born and be pre-inclined to do evil. The Sefer Chasidim apparently understands that some people must struggle more than others to do good, due to their innate nature. The word "Rasha" in this context means "a person for whom it will be very difficult to choose to do good." See, for example, the incident recorded in Shabbos (156b) with regard to Rav Nachman and his head-covering, and see Insights to Yoma 22:3:b. See also Rashi at the beginning of Parshas Toldos, with regard to the character traits of Esav and Yakov in utero.

VILNA GA'ON finds an allusion in the Torah that it is possible to test whether an unborn child will be righteous or wicked based on the way he responds when he craves food on Yom Kippur and is told that the day is Yom Kippur and eating is forbidden. The last verse in Parshas Shemini says, "To distinguish between the impure (Tamei) and the pure (Tahor), and between the creature (Chayah) that may be eaten and the creature (Chayah) that may not be eaten" (Vayikra 11:47). The Vilna Ga'on explains this verse homiletically to mean, "In order to distinguish between the Tamei (the wicked person) and the Tahor (the righteous person), one can observe which Chayah (pregnant woman) eats [on Yom Kippur when the fetus craves food] and which Chayah does not eat."

Steinzaltz (OBM) writes:4

Generally speaking, all of the commandments of the Torah are "pushed aside" in the face of potentially life threatening situations. Therefore, the Mishnah on our *daf* teaches that someone who is ill or pregnant and is in a dangerous situation will be allowed to eat on *Yom Kippur*, or to eat non-kosher food, if necessary.

⁴ <u>https://www.ou.org/life/torah/masechet_yoma_7985/</u>

There are only three *mitzvot* that are so severe that a person should give up his life rather than perform the forbidden acts.

Those mitzvot are -

- 1. avodah zara (idol worship)
- 2. gilui arayot (forbidden sexual activities)
- 3. *shefikhut damim* (murder)

According to the Gemara, the sources for the first two *mitzvot* are Biblical passages. (For the source for *avodah zara*, see Devarim 6:5 which teaches that you must worship God with all of your heart and all of your soul. The source for *gilui arayot* is Devarim 22:26 which compares a forbidden sexual encounter with murder.) According to the Gemara, however, the source for murder being forbidden even at the cost of one's own life does not need to be a *pasuk* – it is a *sevara* – it is simply logical. The logic, as presented by Rava in the Gemara is *mai hazit didama didakh sumac tefei? Dilma dama dihahu gavra samik tefei!* What makes you think that your blood is redder than your fellow's? Perhaps his blood is redder than yours!

The Maharil Habib in his *Tosafot Yom ha-Kippurim* explains this argument as simply meaning that we are unable to weigh the true value of one life against another. Since the whole issue at hand is whether we can "push aside" a *mitzvah* in order to save a life, in this case a life will be lost no matter what, so we cannot allow the forbidden act of murder. It should be noted that this argument works even if we are weighing the value of a single life against that of a group of people. Still the rule of *mai hazit* would not allow the killing of one person, since the relative value of life cannot be determined by numbers.

The mitzvah of mesirus nefesh דתניא, רבי אליעזר אומר: אם נאמר בכל נפשך למה נאמר בכל מאדך? ואם נאמר בכל מאדך למה נאמר בכל נפשך? ...ואם יש לך אדם שממונו חביב עליו מגופו לכך נאמר ובכל מאדך

The Mishnah in Brachos (9:5) teaches that "all your soul" refers to the fact that one must give up his life if necessary in order not to serve idols.⁵ The phrase "all your strength" indicates that one must show his loyalty to Hashem even if it means giving up all of one's money. In the book of Iyov (2:4) it says that a man will give up everything he has to save himself. If so, then a person who is willing to give up his life for Hashem would certainly sacrifice all of his property. Yet the Torah seems to say that these are two independent obligations.

HaRav Zalman Sorotzkin, zt"l, explains that a person is obligated to serve Hashem with his last breath of life to the point where he will sacrifice it to show his loyalty to Hashem and His Torah. When a person fulfills such a kiddush Hashem, he knows that his service of Hashem is pure and complete. Yet how does a person who is not called upon to give up his life know when he is on the path to that love of Hashem which leads to the willingness to sacrifice even his life? Therefore, the Torah commands us to show love to Hashem with all of our property, not merely commanding us to give up all of our possessions in order not to violate the Torah, but also in a positive sense,

⁵ https://dafdigest.org/masechtos/Yoma%20082.pdf

to spend our hard-earned wealth to maximize acts of service to Hashem and acts of loving kindness. One's willingness while alive to use his wealth in an open-handed manner to serve Hashem is the barometer through which one can measure his love for Hashem and the potential to be able to make the ultimate sacrifice of giving up one's life for kiddush Hashem.

Chasam Sofer, zt"l, points out that it is common that when a person is ill, or suffering from poverty, or elderly, he turns to Hashem and contemplates his relationship with Him. This, however, does not yet prove a person's genuine love for Hashem. It may be that the person is turning to Hashem due to his fear of the imminent frailty of his condition. The test as to whether one's underlying approach in his serving of Hashem is based upon a relationship of love is when he does so while he is physically healthy and financially secure.

The Torah commands that you must "love Hashem...with all your heart, with all your soul and with all your might". When a person loves Hashem when his heart is complete and he is in full control of his capacities and powers, including his physical abilities and financial resources, then his love of Hashem is shown to be genuine.

Protection through humility מאי חזית דדמא דידך סומק טפיי דילמא דמא דההוא גברא סומק טפי

Our daf we find that a petitioner asked Rava if he is permitted to commit murder to save his own life, and Rava told him to allow himself to be killed. No one can know if his life is more precious, if his "blood is redder," than his friend's. Rav Simcha Bunim of Peshischa, zt"l, would bring this Gemara as a proof that every person is duty-bound to feel that he is not any more important in Hashem's eyes than any other Jew. This feeling has very broad ramifications, because every sin is really rooted in false pride. Human nature is such that feeling unique and set apart from others seems to constitute a license to indulge sinful desires. And this feeling of uniqueness can persist and prevent a sinner from repenting too. He might think, *"Look how terrible I am— Hashem won't even want me!"* With humility, however, even someone who has already sinned can feel inspired to repent. Whether we are speaking about before or after the sin, subduing one's natural tendency to arrogance is what allows a person to stay close to Hashem in a balanced and healthy way.

When a massive earthquake struck the Galilee in the winter of 5597, Tzfas was leveled. Over 5,000 Jews died or were injured in a single moment of heavenly wrath. One of the leading Rabbonim of Tzfas, Rav Avrohom Dov of Avritch, zt"l, the author of the Bas Ayin, was in shul with his congregation when it struck. As soon as he felt the first tremors of the earthquake, he threw himself down to the floor near the bimah and commanded his congregation, "Come to me!"

As they lay prostrate, crying out in prayer, half of the shul to the other side of the bimah collapsed into rubble. Their side remained untouched. Afterward, the Rav explained his actions. "I saw that the entire structure was going to fall, for the sitra achra had permission to destroy us. Absolute humility was the only thing that could save us. So we had to submit completely—and we were saved!"

Killing one person to save the life of another מאי חזית דדמא דידך סומק טפי דילמא דמא דההוא גברא סומק טפי What do you see [that makes you think that] your blood is redder than his; perhaps the blood of that person is redder [than yours]?

The reason one is not allowed to murder one person to save another is based on the principle, "Who says your blood is redder than his?"

In other words, we do not know the relative value of a person's life and therefore, it is beyond our capacity to make judgments concerning whose life is more valuable.

As a result we must look at all life as being of equal infinite value and when given the choice one is not permitted to choose the life of one person over another even if it means giving up one's own life. This explanation, however, leaves room to make judgments when the logic of the Gemara does not apply. For example, Tosafos (1) writes that the logic applies only when the person is given the choice to murder or to be killed.

If the case was where the person was not asked to actively kill but to play a passive role in killing, the logic would not apply. For example, if a person was given the choice to be dropped on a baby in a way that will kill the baby or to be killed, one is permitted to allow themselves to be thrown on the baby to save their own life since the logic does not apply since the person is not asked to actively choose the life of one person over another. Another application of this type of exception was used when Siamese twins were born and the decision had to be made whether it was permitted to sacrifice the life of one to save the life of the other.

Rav Moshe Feinstein was presented with this question and took many factors into account before rendering his decision. One of the factors taken into account in that particular case was the fact that one baby had an abnormal heart (Baby A) and relied on the other baby (Baby B) with the normal heart to supply blood. Since Baby A could not survive with its abnormal heart, Rav Moshe reasoned that the principle of, "*Who says your blood is redder than his?*" did not apply and it would be permitted to sacrifice one baby to save the other (2).

- תוס' פב ד"ה מה רוצח שכתב "ורוצח גופיה דיהרג היינו משום דמאי חזית דדמא דידך סומק טפי וכו' וה"מ היכא דעביד מעשה אבל אי לא עביד מעשה כגון שרוצים להפילו על התינוק כדי להורגו ואם יעכב על ידם יהרגוהו וכל כי האי גוונא אין לא ליהרג דאדרבה נימא מאי חזית דדמא דידיה סומק טפי דילמא דמא דידי סומק טפי וכו" וע' שו"ת אג"מ יו"ד ח"א סי' רי"ד
- ע' בספר בד קודש שמביא סברא זו בשם הגרמ"פ. ע"ש עוד דיש חולקים
 על הגרמ"פ בזה וכתבו טעמים אחרים להתיר הרילת התינוק החולה בכדי
 להציל את השני

Sarah Wolf writes:6

On today's daf, we continue to explore some of the exceptions to the rules about Yom Kippur prohibitions, specifically the prohibition on eating. The mishnah on today's page tells us that if a pregnant woman smells food — and presumably is overcome by a craving for it — one may feed it to her until she feels better. The Talmud takes this leniency even further, extending it from the prohibition on eating food on Yom Kippur to the prohibition on eating certain forbidden foods year-round.

The sages taught: If a pregnant woman smelled consecrated meat (meat designated for a Temple offering that is forbidden for normal consumption) or pork, one should insert a reed in the gravy on her behalf and place it on her mouth. If her mind is settled, good; if not, one feeds her the gravy itself. If her mind is settled, good; if not, one feeds her the fat itself.

The sages go on to explain that one may help a pregnant woman eat the forbidden meat — and indeed, must do so — because apparently the rabbis believe her craving may be a sign that her body needs the nutrients. And saving a life takes precedence over nearly all the commandments. (There are three exceptions to this rule — idol worship, sexual immorality, and murder — which we'll deal with at greater length in Tractate Sanhedrin, coming up for Daf Yomi readers in about three years' time.)

The Talmud goes into striking detail about the steps that should be taken to ensure that the pregnant woman's needs are being met while also preventing her, if possible, from breaking Jewish law. As Ayelet Libson points out in her book on subjectivity in talmudic law, the Talmud's vision of how to deal with the dilemma of the pregnant woman's cravings differs from the mishnah not only in its greater leniency about pork, but in its acknowledgment that only the pregnant woman knows how she is feeling and what she needs. It is up to her, and only her, to decide at what point her mind is settled. If she says it is not, the Talmud tells us that we must take her at her word, even to the point of enabling her to commit a major transgression.

As more information comes to light about women's experiences of their own bodies not being taken seriously in medical settings today, perhaps this carefully constructed procedure can serve as a helpful counterexample.

Rabbi Johnny Solomon writes:7

Much of *our daf* (Yoma 82a) is dedicated to the mitzvah of lifesaving (פיקוח נפש), and it is here where we learn that, even on Yom Kippur, אין לך דבר שעומד בפני פיקוח נפש – nothing stands in the way of lifesaving - except for idolatry, sexual immorality, and murder. As Rashi explains (on Yoma 82b), this is because 'the physical & spiritual lives of the people of Israel are beloved to

⁶ Myjewishlearning.com

⁷ www.rabbijohnnysolomon.com

God even more than the mitzvot. Consequently, Hakadosh Baruch Hu says, "break a mitzvah to help this person live"

Given this rule, we must all be exceedingly careful – especially with respect to fast days – to ensure that we do not make decisions that might be dangerous to our health, and this is also why every community should have protocols to provide rapid medical assistance to those in need throughout the year, and especially on fast days.

However, beyond the topic of physical lifesaving (פיקוח נפש גופני), our Sages also speak of spiritual lifesaving (פיקוח נפש רוחני). For example, may one transgress the laws of Shabbat to help a Jew who has been brainwashed by apostates, or who has joined a cult, or who is at risk of making decisions that would likely disconnect them from living a Jewish life?

For some authorities like the Rashba (see Beit Yosef OC 306), פיקוח נפש רוחני is not the same as פיקוח נפש גופני and so he rules that Shabbat may not be transgressed for this reason. However, Tosfot seemingly equates the two (ibid.) and permits חילול שבת (Shabbat transgression) for יפיקוח נפש רוחני . Significantly, the Shulchan Aruch (OC 306:14) rules according to Tosfot, which means that not only should someone break Shabbat and other festivals for יקוח נפש רוחני, but also – as noted by the Shevet HaLevi (6:36) and others - a person should be prepared to 'lose out' on certain mitzvot in order to help others at risk of assimilation.

Today, there is great sensitivity in our homes and in our communities about פיקוח נפש גופני. However, in many communities, there is unfortunately less of an emphasis – and in some, no emphasis at all! - about the risks of כיקוח נפש רוחני. The problem is that if we don't see things as a problem, they become normalized. And this is why we need to remember that 'the physical & spiritual lives of the people of Israel are beloved to God' and that we should do all we can to preserve and protect both.

Soul Food

Rabbi Mendel Weinbach writes:8

Included in the cases of life-saving taking precedence over the laws of Yom Kippur is that of an expectant mother whose unborn child smells food. If the resulting desire to taste that food is not satisfied, the lives of both mother and child are in danger. The *mishna* therefore tells us that she must be given to eat from that food until she recovers.

⁸ https://ohr.edu/this_week/the_weekly_daf/311

The Sages nevertheless attempted to satisfy the hunger of such a woman without violating the ban of eating on Yom Kippur. Two incidents are recounted by the *gemara*.

When such a case came before Rebbi (Rabbi Yehuda Hanasi) he instructed his disciples to whisper to the expectant mother that "Today is Yom Kippur." This was done and the unborn child's hunger ceased. Rebbi then quoted this passage regarding that child:

, דְּשָׁרָדָ) בַבֶּטֶן יְדַעְתִידָ (אֶצָרְדָ) בַבֶּטֶן יְדַעְתִידָ וּבְטָרָם הַקְדַשְׁתִידָ: נָבִיא 5 Before I formed thee in the belly I knew thee, and before thou camest forth out of the womb I sanctified thee; I have appointed thee a prophet unto the nations.

Jer 1:5

"Before I formed you in the belly, I knew you, and before you went forth from the womb I sanctified you." That child grew up to be the great sage Rabbi Yochanan.

A similar incident with a different result involved Rabbi Chanina. He gave the same instructions as did Rebbi but the unborn child did not respond until his mother was actually fed. Rabbi Chanina quoted the words of King David in regard to this child:

ד זרו רְשָׁעִים מֵרָחֶם; תָּעוּ 4 The wicked are estranged from the womb; the speakers of lies מַבֶּטֶן, דֹבְרֵי כָזָב. מָבֶטֶן, דֹבְרֵי כָזָב.

Ps 58:4

"The wicked are estranged (from Hashem) in the belly." The child turned out to be a notorious grain hoarder by the name of Shabtai.

The sense of smell, explains Maharsha, is a spiritual one, as the *gemara* says (*Berachos 43b*): "What is it that the soul derives pleasure from but not the body? Fragrance!" The sense of taste, on the contrary, is a physical one. This is why smelling fragrances is permitted on Yom Kippur while tasting food is forbidden. For Yom Kippur is a microcosm of the World to Come in which there is no eating or drinking.

This unborn child whose hunger was satisfied by the soulful experience of merely smelling food, a pleasure permitted on Yom Kippur, turned out to be the great man of soul, Rabbi Yochanan. The other child whose hunger could not be satisfied with smell alone, but rather required the physical experience of eating which is forbidden on Yom Kippur, was destined to be a coarse individual with a material appetite for monetary gain at the expense of others.

Saving life supersedes the mitzvot

Sharona Margolin Halickman writes:9

The Talmud, Yoma 85b, discusses the origin of the concept that saving a life overrides Shabbat. Rav Yehuda said in the name of Shmuel: It is written (Vayikra 18:5) "*v*'chai bahem", "You shall keep My decrees and My laws which if a person obeys they shall live through them..." which implies that one should not die on account of observing the mitzvot.

The saving of life overrides any commandment. *Our Daf* (Yoma 82a) explains that nothing stands in the way of "pikuach nefesh", saving a life, other than the cardinal sins of idol worship, illicit relations or murder.

In Yoma, 83a, we are taught that if a person is sick on Yom Kippur, we feed them on the advice of experts since this is in the category of "*safek nefashot*", uncertainty involving danger to life. In matters involving danger to life, we are bidden to rule leniently (safek *nefashot lehakel*). It is better to err on the side of treating the patient.

Rav Matya ben Charash taught (Yoma 84a): One who feels pain in his mouth, we put medicine in his mouth for him on Shabbat.

The rabbis derive from here that it is permissible to break Shabbat to prepare the medicine for him. If the medicine will be effective, it warrants the suspension of all of the Shabbat laws.

⁹ https://blogs.timesofisrael.com/saving-life-supersedes-the-mitzvot/

Why is it necessary for the mishna to add that every possible danger to life (safek nefashot) supersedes Shabbat?

Rashi explains that even if he will certainly not die this Shabbat, we are afraid that if we don't treat him right away, he may subsequently die. If the doctor requests that a person start to take medication on Shabbat then they should take it right away and not wait until Saturday night.

We are taught in Yoma 84b, that in matters involving danger to life on Shabbat, one who is quick is praiseworthy. They do not need authorization of the Beit Din (court) to proceed. Some examples that are listed in the Talmud: If a child fell into the sea, or into a pit, one can bring him up. If a child is stuck in a locked room, one may break the door to rescue him. If there is a fire, one can extinguish it on Shabbat.

We see from here, that when danger to life is involved, saving a life supersedes the mitzvot.

During these difficult times, one may ask how it is possible that most synagogues in the world are closed. Isn't it important to pray with a minyan?

Since the health authorities feel that those who are packed into a synagogue can spread the virus, we must listen to them. Unfortunately, many were infected in Israel and throughout the world in synagogues over Purim as well as in daily minyanim and on Shabbat before the new regulations went into effect. Just as in the case of Yom Kippur, we trust the experts to determine if the person should eat or not, so too, we must trust the doctors who insist that we do not to open the synagogues at this time.

Although it is not easy to be away from the community for so long, we must also follow the view that even if there is a chance that there could be danger, we must take the lenient view and tell people not to pray with a minyan. In Israel, they are now allowing outdoor minyanim, where groups of nineteen can pray together outside if everyone is standing two meters apart. In some communities this may work. In others, people may not be able to resist socializing which could end up being very dangerous.

It is better to stay safe now and follow the orders, even if it means performing less mitzvot in order to keep the community healthy so that we will be able to observe more mitzvot in the future.

Pregnant Women

Rabbi Eliezer Melamed writes:10

Pregnant and nursing women are obligated to fast on Yom Kippur (*Pesachim 54b; S.A.617:1*). Even on Tisha B'Av, pregnant and nursing women are obligated to fast, *kal v'chomer* (all the more so) on Yom Kippur, whose requirement stems from the Torah.

There are some *poskim* (Jewish law authorities) who sought to permit pregnant women to drink in *'shiurim'* because in their opinion, women have become weaker nowadays, and fasting may cause them to miscarry. However, from studies conducted in Israel and abroad, it was revealed that fasting does not increase the risk of miscarriage. Only in rare cases is fasting liable to induce labor in the ninth month of pregnancy and, in any event, this does not entail *'sakanat nefashot'*. Also, there is no evidence to the claim that nowadays women are weaker. On the contrary – today people are healthier than in the past, due to both the diversity and abundance of food, better hygiene, and medical advancements. This is also reflected in the rise of life expectancy by tens of years. Consequently, there is no room to be more lenient than in the past, and the halakha remains firm that pregnant and nursing women are obligated to fast (*Nishmat Avraham 617:1*).

Therefore, even a pregnant woman suffering from vomiting, high blood pressure, low hemoglobin (iron) or various ailments is obligated to fast on Yom Kippur, and it is forbidden for her to drink

¹⁰ https://en.yhb.org.il/fasting-also-for-pregnant-and-nursing-women/

in '*shiurim*'. Only in exceptional cases where the pregnancy is at risk, and in accordance with the advice of a religiously observant doctor, should a pregnant woman be instructed to drink, and in such a case, preferably in '*shiurim*'.

Yom Kippur fast doubles risk of early birth, study finds

Research gives backing for recommendation against fasting while pregnant, despite stricter Orthodox Jewish guidelines

ANDREW TOBIN writes:¹¹



Premature babies are at elevated risk for various health problems and for death.

 $^{^{11}\} https://www.timesofisrael.com/yom-kippur-fast-doubles-risk-of-early-birth-study/$

Fasting on Yom Kippur while pregnant may trigger early birth, according to a new Israeli study — providing the first clear evidence against doing so.

In the retrospective cohort study of 725 deliveries in Israel on Yom Kippur over 23 years, Jewish women were twice as likely as others to have their babies early, the study found. Premature babies are at elevated risk for various health problems and for death.

Jews are religiously obligated to fast on Yom Kippur, which falls this year on Friday night and Saturday, considered the holiest day on the Jewish calendar. Pregnant women are included in this, but if a doctor gives them a pass, they can eat and drink a bit.

Still, many pregnant Jewish women at least partially refrain from eating or drinking during the 25 hour period, according to their religious beliefs.

Although doctors often advise their patients not to fast while pregnant, the recommendation is not supported by clear evidence or by official medical guidelines. The large cross-sectional study, published in The Journal of Maternal-Fetal & Neonatal Medicine this month, adds empirical weight to recommending leniency on the matter.

"We found that during the Day of Atonement, Jews had twice as many preterm deliveries. And I'm not talking about one year, I'm speaking about the whole study period," said Prof. Eyal Sheiner, an obstetrician and gynecologist at Ben-Gurion University of the Negev and at Soroka Medical Center in Beersheba, who led the study. "This is the first evidence based study to support our recommendation (to pregnant women) not to fast on Yom Kippur."

Sheiner's post-doctoral students Dr. Natalie Shalit and Dr. Roy Shalit co-authored the study.

Soroka Medical Center is the largest hospital in southern Israel. About half of the patients who give birth at the hospital are Jewish, and about half are Bedouin. Sheiner noticed a boost in deliveries every year on Yom Kippur in the obstetrics and gynecology department he heads.



Prof. Eyal Sheiner, an obstetrician and gynecologist at Ben-Gurion University of the Negev and at Soroka Medical Center in Beersheba, who led the study.

To investigate why, he matched data on deliveries at the hospital from 1988 to 2012 with the Jewish calendar. Of the mothers, 388 were Jewish and 357 were Bedouin. Forty-seven, or 6.3 percent, of the births were premature, or earlier than 37 weeks after conception. Data analysis revealed that the Jewish mothers were twice as likely as their Bedouin counterparts to give birth early on Yom Kippur.

The difference remained significant after controlling for other factors that could explain early birth — the mother's age, previous early delivery, and problems with fetal development. Significantly — looking at the day exactly a week before Yom Kippur each year, Sheiner found no significant difference in early births between the two groups of mothers.

Several previous studies showed an increase in labor and in deliveries on Yom Kippur and on the following day, but none of them specifically addressed early birth. Sheiner said that since many

pregnant Jewish women do not fast completely or at all on Yom Kippur, the risk of a 25 hour fast may be even greater than is reflected in the study.

Babies born prematurely are at increased risk of complications at birth, and the risks rise according to how early a baby is born. Seventy-five to 80 percent of babies who die at birth are born early. They are also more likely to develop cerebral palsy, impaired cognitive skills, sensory, dental, behavioral and psychological problems, and chronic health issues later in life.

"The best incubator for the first 37 weeks is the uterus," said Sheiner.

The relationship between early delivery and fasting is not well understood. The leading theory is that fasting increases the thickness of the blood, which promotes the secretion of a hormone shown to induce contractions of the uterus.

Sheiner said dehydration and stress are both risk factors for early delivery. The first thing he says doctors at his hospital do when a woman comes in with preterm contractions is to hydrate her. He said he will continue advising women to take a break from the Yom Kippur fast when they are pregnant, especially now that he's armed with the numbers to support his recommendation.

The effect of Ramadan fasting during pregnancy on perinatal outcomes: a systematic review and meta-analysis

- Jocelyn D. Glazier,
- Dexter J. L. Hayes,
- Sabiha Hussain,
- Stephen W. D'Souza,
- Joanne Whitcombe,
- Alexander E. P. Heazell &
- Nick Ashton ¹²

¹² BMC Pregnancy Childbirth 18, 421 (2018)

Background

Although exempt, many pregnant Muslim women partake in the daily fast during daylight hours during the month of Ramadan. In other contexts an impoverished diet during pregnancy impacts on birth weight. The aim of this systematic review was to determine whether Ramadan fasting by pregnant women affects perinatal outcomes. Primary outcomes investigated were perinatal mortality, preterm birth and small for gestational age (SGA) infants. Secondary outcomes investigated were stillbirth, neonatal death, maternal death, hypertensive disorders of pregnancy, gestational diabetes, congenital abnormalities, serious neonatal morbidity, birth weight, preterm birth and placental weight.

Methods

Systematic review and meta-analysis of observational studies and randomised controlled trials was conducted in EMBASE, MEDLINE, CINAHL, Web of Science, , the Health Management Information Consortium and Applied Social Sciences Index and Abstracts. Studies from any year were eligible. Studies reporting predefined perinatal outcomes in pregnancies exposed to Ramadan fasting were included. Cohort studies with no comparator group or that considered fasting outside pregnancy were excluded, as were studies assuming fasting practice based solely upon family name. Quality of included studies was assessed using the ROBINS-I tool for assessing risk of bias in non-randomised studies. Analyses were performed in STATA.

Results

From 375 records, 22 studies of 31,374 pregnancies were included, of which 18,920 pregnancies were exposed to Ramadan fasting. Birth weight was reported in 21 studies and was not affected by maternal fasting (standardised mean difference [SMD] 0.03, 95% CI 0.00 to 0.05). Placental weight was significantly lower in fasting mothers (SMD -0.94, 95% CI -0.97 to -0.90), although this observation was dominated by a single large study. No data were presented for perinatal mortality. Ramadan fasting had no effect on preterm delivery (odds ratio 0.99, 95% CI 0.72 to 1.37) based on 5600 pregnancies (1193 exposed to Ramadan fasting).

Conclusions

Ramadan fasting does not adversely affect birth weight although there is insufficient evidence regarding potential effects on other perinatal outcomes. Further studies are needed to accurately determine whether Ramadan fasting is associated with adverse maternal or neonatal outcome.

During the month of Ramadan, healthy adult Muslims abstain from eating and drinking from sunrise until sunset. This represents a form of intermittent fasting where both the quantity and quality of food eaten are altered [1]. Although pregnant Muslim women are exempt from fasting, evidence suggests that up to 90% partake in Ramadan fasting for at least part of the month [2, 3],

being keen to share the cultural experience with their families. The estimate of 230 million Muslim women of childbearing age worldwide [4], with a fertility rate averaging 3.1 children per woman [4], leads to the potential for up to 535 million babies in each generation to be exposed *in utero* over Ramadan to a repeated cyclical pattern of maternal intermittent fasting.

Exposure to a restricted or sub-optimal diet during pregnancy affects fetal development and has life-long health impacts on the offspring [5]. Low birth weight and altered neonatal growth trajectories are associated with an increased risk of cardiovascular disease, diabetes [5], obesity [6] and impaired cognitive function [7]. Preterm delivery and reduced birth weight are more prevalent in women who eat less frequently while pregnant [8], suggesting that pregnant women who fast during Ramadan may be more likely to give birth to premature or underweight babies.

Although the impact of Ramadan fasting during pregnancy on the health of the child has been investigated [9,10,11,12,13], individual studies show conflicting results and sample sizes are often too small to allow evaluation of serious, but infrequent, outcomes. Furthermore, the timing of exposure to maternal fasting during Ramadan may affect the outcome [14], yet the trimester of fetal exposure to fasting is generally poorly defined in studies. Although fasting could arise at any pregnancy stage, occurrence early in the first trimester seems most likely as the mother may be unaware that she is already pregnant. Fasting during the first trimester has been reported to be associated with reduced birth weight [15], whereas placental weight, another predictor of health outcomes in offspring [16], is reportedly lower if the mother fasted during the second or third trimester [17].

Muslim women may seek advice from health practitioners regarding the safety of Ramadan fasting; however the current information available to pregnant women is contradictory [18] and clear guidance is lacking. Therefore, available evidence regarding associations between Ramadan fasting and pregnancy outcomes needs to be evaluated.

The aim of this systematic review and meta-analysis was to determine the effects of maternal intermittent fasting during Ramadan on a range of pregnancy outcomes.

Methods

The systematic review and meta-analysis is reported in accordance with PRISMA guidelines [19]; the review protocol was registered with the International Prospective Register of Systematic Reviews (PROSPERO) on 8 July 2016 (CRD42016041949).

Eligibility criteria, information sources, search strategy

Searches were carried out in EMBASE, MEDLINE, CINAHL, Web of Science, , the Health Management Information Consortium (HMIC) and Applied Social Sciences Index and Abstracts. In order to reduce publication bias, searches were also carried out in the Centre for Reviews and Dissemination databases, ProQuest and ETHOS to uncover any relevant unpublished studies and grey literature. Reference lists of eligible studies were checked for other potentially eligible studies for inclusion. The search was not limited by dates but was limited to English-only publications.

All searches were updated on 11 April 2018. See Additional file $\underline{1}$ for the EMBASE search strategy. Searches were performed by JW, SH and DH.

We included observational studies which reported either primary or secondary outcomes in pregnancies that were exposed to intermittent fasting during Ramadan compared to unexposed pregnancies. Randomised controlled trials or cluster randomised controlled trials were also eligible. Cohort studies with no comparator group (which only reported an outcome of interest in women who fasted during pregnancy) were excluded. If studies assumed fasting practice based solely upon ethnic group or family name then they were excluded as this was deemed to be unreliable. Studies were not excluded based on their geographical location or the timing of fasting with regard to trimester of pregnancy.

Studies were included if they reported a relevant pregnancy outcome in women who intermittently fasted during their pregnancy. The exposure of interest was intermittent fasting during the month of Ramadan during any stage of pregnancy. Studies looking at fasting during any other time period (prior to conception, postnatal period) were excluded.

Primary outcomes for this study were: perinatal mortality (the death of a baby before birth or during the first week of life), preterm birth (before 37 weeks of pregnancy) and small for gestational age (SGA) infants (as defined by each study or below the tenth centile for gestational age). Secondary outcomes were: stillbirth (the death of a baby before birth after 20 weeks' gestation), neonatal death (the death of a baby during the first 28 days of life), maternal death (the death of the mother during pregnancy or the first 6 weeks postnatally), hypertensive disorders of pregnancy, gestational diabetes, congenital abnormalities (structural abnormalities of the fetus), serious neonatal morbidity, birth weight (continuous variable), low birth weight (< 2500 g), very low birth weight (< 1500 g), extremely preterm birth (< 28 weeks gestation) and placental weight (continuous variable).

Data extraction

After removal of duplicates, all citations were screened for relevance using the full citation, abstract and indexing terms. Relevant studies were assessed for eligibility by two out of four reviewers (SH, DH, JG and SDS) according to the pre-specified inclusion and exclusion criteria, and where possible full manuscripts were obtained. Final decisions were made by two reviewers independently and a third (AH or NA) consulted to resolve any issues where necessary. Where data were missing or incomplete, attempts were made to contact the authors for clarification.

Assessment of risk of bias

Included studies were assessed using the Risk Of Bias In Non-randomised Studies – of Interventions (ROBINS-I) tool [20], which categorises risk of bias as low, moderate, serious, critical and unclear, and the risk of bias category for each study was reported; if a study's risk of bias was categorised as serious, critical or unclear, the effect of removing this study was tested and the relevant outcome(s) reported.

Data synthesis

Meta-analysis was performed in STATA (Version 14) [21] using the *metan* [22] and *metabias* [23] commands. Random effects meta-analysis was used in anticipation of heterogeneity due to differences in study design.

For continuous variables (birth weight and placental weight), standardised mean differences (SMD) (Hedges' g) with 95% confidence intervals were calculated. For binary variables (low birth weight and preterm delivery), odds ratios and 95% confidence intervals were calculated. The I^2 statistic was calculated; this is derived from Cochran's chi-squared statistic Q and is used to describe the percentage of between-study variation that is attributable to variability in the true exposure effect [24]. An I^2 value of 0–30% was classified as low, 31–60% as moderate, 61–90% substantial and 91–100% considerable [25]. Funnel plots were created to test for small-study effects.

Where studies presented continuous data grouped by trimester in which fasting took place, length of fasting or stratified by other measures (e.g. fetal sex), then averages were taken to obtain overall means and standard deviations. Where outcome data were available by fasting trimester then data were stratified by trimester and the effect of this was investigated.

Results

Study selection

The search strategy identified 375 records (Fig. <u>1</u>). After duplicates were removed 118 papers were screened on the basis of their titles and abstracts. Forty papers were excluded on this basis, resulting in 78 papers to be evaluated using their full text. After exclusions, 22 studies of 31,374 pregnancies were included in the final analysis.

Fig. 1



PRISMA diagram of included studies. Flow chart showing study selection

Study characteristics

Seven studies reported data for at least one of the co-primary outcomes (perinatal mortality, SGA infants and preterm birth) and all but one study [9] reported data on at least one secondary outcome (Table 1). Six studies were judged to be at moderate risk of bias; the other 16 were determined to be at low risk (Table 2). Heterogeneity for outcomes ranged from 0 to 98.5%.

Synthesis of results

No studies presented data regarding perinatal mortality, and only two [10, 11] had data for SGA infants so meta-analysis was not performed. There was no significant effect of Ramadan fasting on the frequency of preterm delivery (OR 0.99, 95% CI 0.72 to 1.37) (Fig. 2); data were available on 5600 pregnancies from five studies [9, 10, 12, 13, 26] of which 1193 were exposed to Ramadan fasting. One study defined preterm delivery as < 38 weeks gestation so these data were not included [27]. Another study excluded preterm deliveries from the cohort [28].



Fig. 2

Effect of fasting on the likelihood of preterm delivery. Forest plot showing the effect of maternal fasting on preterm delivery

All but one study [9] examined birth weight as a continuous variable; data were available on 31,441 pregnancies, of which 19,030 were exposed to fasting. There was no significant effect of maternal Ramadan fasting on birth weight (SMD 0.03, 95% CI 0.00 to 0.05) (Fig. 3). Three studies [29–31] presented mean results stratified by trimester in which fasting occurred, and an additional ten studies [11, 27, 32–39] were of third trimester exposure allowing a comparison to be performed; however no individual trimester showed a significant effect of fasting on birth weight and there was no difference between trimester groups (p = 0.99).

First author	Year	SMD (95% CI)	% Weight
Alwasel	2011 •	0.03 (-0.01, 0.06)	58.27
Arab	2001 -	0.07 (0.01, 0.14)	15.74
Awwad	2012	-0.23 (-0.43, -0.03)	1.76
Azizi	2004	-0.09 (-0.38, 0.19)	0.84
Bayoglu Tekin	2016	0.26 (-0.30, 0.83)	0.21
Daley	2017	0.09 (-0.01, 0.18)	7.66
Hefni	1993	-0.02 (-0.24, 0.20)	1.42
Hizli	2012	0.31 (-0.06, 0.69)	0.48
Karateke	2016	-0.08 (-0.33, 0.17)	1.06
Kavehmanesh	2004	- 0.22 (0.06, 0.39)	2.35
Makvandi	2013	0.00 (-0.23, 0.23)	1.32
Malhotra	1989	• 0.69 (-0.17, 1.56)	0.09
Naderi	2004	-0.10 (-0.49, 0.29)	0.44
Petherick	2014	- 0.17 (-0.06, 0.40)	1.29
Rezk	2016	-0.12 (-0.30, 0.07)	1.97
Sakar	2016	-0.03 (-0.24, 0.19)	1.49
Sarafraz	2013	-0.01 (-0.26, 0.24)	1.12
Savitri	2018	- 0.02 (-0.38, 0.43)	0.40
Seckin	2014	-1.10 (-1.42, -0.77)	0.65
Shahgheibi	2005	-0.08 (-0.39, 0.24)	0.68
Ziaee	2010	- 0.07 (-0.23, 0.37)	0.76
Overall (I-square	d = 72.7%, p = 0.000)	0.03 (0.00, 0.05)	100.00
	1.50	1	

Fig. 3

Effect of fasting on birth weight. Forest plot showing the effect of maternal fasting on birth weight as a continuous variable

Eight studies [10, 13, 26, 30, 31, 35, 39, 40] investigated the effects of maternal fasting on low birth weight (LBW); there were 11,080 births from these studies, of which 4344 were from mothers who fasted. Fasting did not significantly affect the proportion of LBW babies (OR 1.05, 95% CI 0.87 to 1.26) (Fig. 4). Three of these studies [30, 31, 40] stratified their data by trimester (n = 2411

first trimester fasting, n = 2571 second trimester, n = 2356 third trimester); there was no significant difference in the effect ($l^2 \ 0.0\% \ p = 0.57$).



Fig. 4

Effect of fasting on likelihood of low birth weight births. Forest plot showing the effect of maternal fasting on low birth weight (< 2500 g) births

Three studies comprising 17,986 pregnancies measured placental weight as an outcome [<u>11</u>, <u>29</u>, <u>37</u>]. Placental weight was significantly lower in fasting mothers (SMD -0.94, 95% CI - 0.97 to -0.90) (Fig. <u>5</u>).

Fig. 5



Effect of fasting on placental weight. Forest plot showing the effect of maternal fasting on placental weight as a continuous variable

Two authors were contacted for information. One responded [33], providing clarification on study outcomes. No information was provided regarding discrepancies between numbers in tables and text in another paper [40]; data from the text were used as these were consistent with data reported in the abstract.

Risk of bias of included studies

Egger's test gave a value of p = 0.082 indicating that there was no significant influence of small study effects on our results (Fig. <u>6</u>). No studies were assessed as having a high risk of bias so the analyses presented include all results. However, of the 31,441 pregnancies where birth weight was measured as an outcome, 17,626 were from one study [<u>29</u>]. A sensitivity analysis was performed to determine how much of an effect this study had on the overall result; without this study a SMD of 0.03 (95% CI -0.01 to 0.07) was obtained, still demonstrating no significant effect of fasting on birth weight.

Fig. 6



Funnel plot with 95% confidence limits. Funnel plot for all studies of birth weight

Discussion

Of our co-primary outcomes, only preterm birth had sufficient studies for meta-analysis which found no significant effect of Ramadan fasting. Data were available for some secondary outcomes: birth weight, placental weight and low birth weight; only placental weight was reduced by Ramadan fasting. However, this result was dominated by one study [29], which comprised 17,626 of 17,986 births for this outcome; one of the other two studies found a significant increase in placental weight [37]. There were insufficient data to perform meta-analysis for other outcomes, including: congenital abnormalities, gestational diabetes, hypertension, stillbirth and neonatal death. Stillbirth and neonatal death are arguably the most serious of these outcomes, yet due to the relatively small number of studies and their comparatively low incidences this study was underpowered to detect a difference. The paucity of data indicates a need for further large scale studies which report data on these rare but serious outcomes.

Strengths and limitations

This study was strengthened in that it was carried out in accordance with a prospective protocol with pre-specified eligibility criteria and primary outcomes. This is the first meta-analysis to examine the effects of Ramadan fasting and provides a dataset that can be updated as the number

of studies grows. It has also highlighted the current lack of data and identified research gaps to be addressed. This study was limited by the fact that due to resources only English language papers were included. Furthermore, other potential effects of Ramadan fasting may not have been included in our outcome measures. Other studies have shown effects of Ramadan fasting on fetal movement [41], maternal glucose levels [42] and various fetal growth indices [43]. Furthermore, our review did not examine whether fasting in the periconceptional period was associated with pregnancy outcome. As enduring effects of fasting and maternal undernutrition in this period have been shown in animal models [44, 45], this hypothesis merits further exploration.

The studies reviewed suggest that pregnant women who are well nourished may have nutritional reserves to support fetal adaptations during Ramadan fasting. However, longitudinal information on fetal growth was not available; the only feasible measure recorded was birth weight. Therefore, it remains to be established whether Ramadan fasting alters fetal growth patterns. Furthermore, there is little known about postnatal growth or growth and development in infancy and childhood.

Our literature search also identified papers that reported data on co-primary or secondary outcomes but presented the data in ways that could not be incorporated; Salleh [46] used linear regression to examine the effects of Ramadan fasting on birth weight and Boskabadi et al. [47] also looked at birth weight but presented data as medians and interquartile ranges; there was no control group in the study. One of our included studies [9] contained usable data for preterm delivery; however birth weight data were presented as medians and IQRs. Neither of these studies found differences between the control and fasting groups. Other studies were excluded because study groups were not sufficiently clear: Almond and Mazumder [48] acknowledged that not all women in their 'fasting' group fasted and that a large number of non-Muslims may also have been included. Cross et al. [49] defined maternal Muslim status (and assumed fasting status) based on the first three letters of maternal surnames.

Data showed significant heterogeneity for some outcomes. This variation may not relate to trimester of fasting, as when data were stratified by trimester there were no significant differences in the observed effect, although this may also represent a type 2 error as this meta-analysis may not have sufficient statistical power to detect such a difference. Only three studies presented usable data stratified by trimester of fasting for birth weight [29-31], of which one [31] found an association between trimester and mean neonatal weight. Alwasel et al. [29] showed significant associations in the second and third trimesters but not the first. Savitri et al. [28] performed regression analysis to investigate the effect of fasting trimester and found no significance, although they state that there was a trend towards lower birth weight with fasting, particularly in the second and third trimester. It may be that fasting later in pregnancy, when fetal growth is exponential, would be more likely to impact birth weight; further human studies are needed.

We were not able to investigate potential effects of Ramadan fasting length (in days) and duration (hours/day) due to limitations in available data. Duration of fasting was not documented by all studies and data were recorded in different ways; some studies stated the average number of fasting hours per day [9, 12, 32,33,34, 36] while others gave the upper [13] or lower [27] limits. In total, 16 included studies recorded the average number of fasting days (Table 1), but few papers stratified by number of days fasting so meta-regression could not be performed. However, only one paper

that divided data by number of fasting days [$\underline{40}$] found a significant difference in outcome: that birth weight following more than 20 days of fasting was significantly greater than that after fasting for 1–9 days. Makki [$\underline{50}$] found no relationship between the number of fasting days and incidence of low birth weight. However, this paper could not be included in our analysis as there was no comparator group.

Another potential source of heterogeneity was geographical location of study. The majority of studies were from Asia and the Middle East (8 from Iran [12, 31, 32, 35, 39, 40, 51, 52], 6 from Turkey [9, 30, 33, 34, 37, 38], 2 from Egypt [27, 36], 1 from Indonesia [28], 1 from Saudi Arabia [29] and 1 from Lebanon [10]). Three included studies [11, 13, 26] were from the UK. Geographical location may alter the number of hours of fasting, and thus the physiological challenge on the developing fetus, as the timing of the daily fast is determined by sunrise and sunset.

Risk of bias is unlikely to account for the observed heterogeneity as overall risk of bias of the included studies was low, with only six studies [<u>11</u>, <u>13</u>, <u>26</u>, <u>28</u>, <u>29</u>, <u>40</u>] judged to be at moderate risk of bias. The majority of bias was due to uncertainty of the trimester affected by fasting. Three studies were judged to be at serious risk of bias for individual domains: one paper was due to missing data [<u>40</u>], another for selection of participants [<u>28</u>], and the other due to classification of exposure [<u>29</u>]. Therefore, subgroup analysis for risk of bias was not conducted.

Conclusions

This meta-analysis did not find any significant associations between Ramadan fasting and pregnancy outcome. Although studies were drawn from a large literature base, only a relatively small number met the inclusion criteria for analysis, limiting the breadth of robust conclusions. Until more definitive data are available, clinicians and other pregnancy healthcare providers cannot make firm recommendations that Ramadan fasting has no adverse consequences for mother or infant. Further observational studies of the effects of Ramadan fasting are required. Even if individual studies are not sufficiently large to determine differences in rare outcomes such as stillbirth or neonatal death, these should still be reported to facilitate subsequent meta-analysis. Additional studies are also needed to explore the origin of the considerable heterogeneity in observations; these should determine the effects of fasting in the periconceptional period, in different trimesters of pregnancy and whether geographical location, time of year and consequent duration of fasting alters the effect. Thus, well-designed studies investigating Ramadan fasting during pregnancy are needed to investigate the full impacts on maternal and fetal health, as well as to give potential fasting mothers an informed choice whilst addressing an issue that could have enduring public health consequences [53].

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