



Risk of Obesity on Woman Health in Baghdad City

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Abstract

Maternal obesity is linked rates of high-risk obstetrical conditions such as diabetes and hypertension with higher rates of cesarean section. Pregnancy outcomes are negatively affected by maternal obesity (increased risk of neonatal mortality and malformations). The research aims to show the effect of obesity of woman on physical and metabolisms status.

Keywords: Risk, Obesity, Woman health.

مخاطر السمنة وتأثيرها على صحة المرأة في مدينة بغداد

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الخلاصة

الأم البدنية تتعرض إلى مخاطر عالية منها إرتفاع معدلات السكر والضغط مما يؤدي إلى زيادة نسبة العمليات القيصرية. نتائج الحمل تكون سلبية على الأم البدنية (زيادة معدل الوفيات والتشوهات الخلقية الجنينية).

Introduction

Spread overweight and obesity which regard as public health burden make us aware the effectiveness of weight gain and physical activity. Some problems of obesity higher risk of low back pain, knee osteoarthritis, contraception and fertility, increasing rates cesarean section as well as risk obstetrical diabetes and hypertension. Obese women may be subject to have endometrial, cervical, breast cancers. Sometimes occur physiological disturbance lead to hormonal imbalances, such as elevated glucose and cholesterol in blood caused to risk of cardio vascular disease (CVD) [1]. World health organization (WHO) classified obesity and overweight as a global epidemic [2]. Main factors of obesity and overweight are unhealthy diets and insufficient physical activity [3]. "Statistic show about 2.3 billion overweight people aged 15 years and above and over 700 million obese people worldwide in 2015. Overweight and obesity are the fifth leading risk of deaths, resulting in around 2.8 million deaths of adults globally every year, and 44% of the diabetes burden, 23% of the ischemic heart disease, and between 7% and 41% of certain cancer burdens are attributable to overweight or obesity" [4]. "The World Health Organization (WHO, 2012) the Institute of Medicine (Institute of Medicine, 2009) defined obesity, as a body mass index (BMI) higher or equal to 30, so it is an increasing problem in many developed and

developing countries, also in women of reproductive age and been age of the most health challenges worldwide" [5]. Un awareness, lower education levels and rates of marriage regard as societal problems caused to obesity [6].

Methodology

A descriptive study on non-probability sample (purposive sample) of one hundred twenty (120) obesity women to assess the risk of obesity on women health who attending outpatient clinic for seeking treatment at Baghdad General Teaching Hospital ,Clinic in High Institute of Diagnostic Infertility in AL-Kademya Town, and the Health Center in University of AL-Nahrain. The questionnaire form was consisted of(5) main parts: Demographic characteristics, Reproductive Information, Medical conditions, Laboratory Examination and Life Style Information. The data were collected by using interview method and self-report techniques with study participants. The data were collected by using interview method and self-report techniques with study participants after obtaining permission from each of them according to the inclusion criteria. Descriptive Statistics: Frequency and percentage, inferential statistics: Chi-Square test, contingency coefficients and relative sufficiency .

Result

The study showed that the highest percentage (39%) of study sample at age group (30-34) years (Table- 1), (51%) of study sample years of marriage are ranging between (10-19) years (Table- 1), (84%) of study sample their socio-economic level were low (Table- 1). The highest percentage (46%)of study sample for body mass index (BMI) their majority in light of obsess (Table- 2). The highest percentage (52%) of study sample their age of Menarche group (13- 14) years (Table- 3). The highest percentage (77%) of study samples among of them had delivery cesarean section (Table-4). The highest percentage (66%) of "Laboratory Examination Side "results shows that who hadn't do blood cholesterol test (Table- 5). The highest percentage (89%) who undergo abdominal surgical (Table-5). The highest percentage (91%) of "Medical Information Side" who suffering of body fatigue (Table- 6), and (89%) who had suffering of any osteoporosis problems (Table- 6). The highest percentage (117%) of "The Life Style Side "who had diet classification (Carbohydrates) ((Table-7)), and (105%) who had diet classification (Fats) ((Table-7)). Slop of (BMI), a large occur function (Physical metabolisms status) (0.016587), a 0000 (Table-8). Body mass index are reported highly significant different at $P < 0.01$ among different groups. A meaningful relationship are accounted between the two factors, "BMI on Physical and metabolisms status in compact form", and that are accounted at $P < 0.01$, that with increasing grade concerning within (BMI), flagging of increments had occurrences in (Physical and metabolisms status) with morbidity status.

Table 1-Descriptive Statistics of Socio-Demographical Characteristics variables for studied women.

SDCv.	Groups	No.	%
Women's age	< 25	13	10.8
	25 - 29	29	24.2
	30 - 34	39	32.5
	35 - 39	29	24.2
	40 - 44	10	8.3
	Mean \pm SD	31.51 \pm 5.64	
Marriage years	< 5	26	21.7
	5 - 9	38	31.7
	10 - 19	51	42.5
	20 >	5	4.2
	Mean \pm SD	9.65 \pm 5.50	
Residency	Urban	83	69.2
	Rural	37	30.8
Socio-Economic Status	Low : 89 - & less	84	70.0
	Mod. : 90 - 120	24	20.0
	High :121 - 150	12	10.0

Table 2-Distribution of studied samples according to Anthropometric parameter

Anthropometric	Groups	No.	%	C.S. (*) [P-value]
BMI	Overweight	5	4.2	$\chi^2 = 31.133$ P=0.000 (HS)
	Obese - I	46	38.3	
	Obese - II	37	30.8	
	Obese - III	32	26.7	
	Mean \pm SD	36.62 \pm 5.11		

(*) HS: Highly Sig. at P<0.01; based on test.

Table 3-Reproductive Health Parameters Distribution Concerning Studied of Obese Women.

Reproductive Health Side	Groups	No.	%
Age of menarche Yrs.	11 - 12	49	40.8
	13 - 14	52	43.3
	15 - 16	19	15.8
Menstrual Regularity	Regular	77	64.2
	Irregular	43	35.8
Menstrual Amount:	Large	16	13.3
	Moderate	78	65.0
	Little	26	21.7
Number of Pregnancies	1 - 2	26	21.7
	3 - 4	35	29.2
	5 - 6	29	24.2
	7 >	17	14.2
Number of abortions	Non Applicable	64	53.3
	1 - 2	45	37.5
	3 - 4	9	7.5
	5 >	2	1.7
	Number of living children	Non Applicable	21
1 - 2		35	29.2
3 - 4		41	34.2
5 >		23	19.2
Number of Stillbirths	Non Applicable	101	84.2
	one	17	14.2
	two	2	1.7

Table -3 shows observed frequencies, and percentages of "Reproductive Health Side". Results shows that age of menarche are focuses in the first and second groups, and they are accounted 101(84.1%), as well as irregular menstrual status are accounted 43(35.8%), then menstrual amount large and moderate accounted 94(78.3%), majority of pregnancies' numbers are distributed similarly in the first three groups, and they are accounted 90(75.1%), then among studied women who had abortion are accounted 45(37.5%). Number of living children up to four are accounted 76 (63.4%). Number of stillbirths of only one are accounted 17(14.2%).

Table 4-Delivery and Feeding Parameters Concerning Studied of Obese Women.

Delivery and Feeding Side	Groups	No.	%
Did you have done your delivery normally?	No	81	67.5
	Yes	39	32.5
Did you have done your delivery cesarean section ?	No	43	35.8
	Yes	77	64.2
Did you feed your baby by breast?	No	59	49.2
	Yes	61	50.8
Did you feed your baby by artificially?	No	64	53.3
	Yes	56	46.7
If you answer breast feeding how much time for fed?	Non Applicable	59	49.2
	> 12 m.	12	10.0
	12 - 24 m.	49	40.8

Table -4 shows observed frequencies, and percentages of "Delivery and Feeding Side". Results shows that most of studied women had not normal delivery, and they are accounted 81(67.5%), and among of them had delivery cesarean section are accounted 77(64.2%), then who hadn't feeding baby by breast accounted 59(49.2%), and among them who had artificially feeding are accounted 56(46.7%), then finally 12(10%) among who had breast feeding having > 12 months.

Table 5-Laboratory Examination Distribution Concerning Studied of Obese Women

The Laboratory Examination Side	Resp.	No.	%
Did you do blood cholesterol test?	Yes	54	45
	No	66	55
Did you do with your husband blood fasting sugar?	Yes	88	73.3
	No	32	26.7
Did you do with your husband hormonal test?	Yes	81	67.5
	No	39	32.5
Have you been examined by ultrasonic scan?	Yes	98	81.7
	No	22	18.3
If the answer is yes, is there negative or positive?	Negative	38	38.8
	Positive	60	61.2
Did you do abdominal surgical?	Yes	89	74.2
	No	31	25.8

Table-5 shows observed frequencies, percentages of "Laboratory Examination Side". Results shows that who hadn't do blood cholesterol test of are accounted 66(55%), and who hadn't do and her husband hormonal test are accounted 39(32.5%), and who hadn't do and her husband blood fasting sugar test are accounted 32(26.7%), and who hadn't do examined by ultrasonic scan are accounted 22(18.3%), and among them whose results was positive are accounted 60(61.2%), finally who had do abdominal surgical of are accounted 89 (74.2%).

Table 6-Distribution of Medical Information Concerning Studied of Obese Women.

The Medical Information Side	Resp.	No.	%
Are you suffering of hypertension?	Yes	37	30.8
	No	83	69.2
Are you suffering of diabetic?	Yes	16	13.3
	No	104	86.7
Are you suffering of cardiac problems?	Yes	43	35.8
	No	77	64.2
Did you have unusual percent of cholesterol?	Yes	57	47.5
	No	63	52.5
Are there any digestive system problems?	Yes	70	58.3
	No	50	41.7
Are there any osteoporosis problems?	Yes	89	74.2
	No	31	25.8
Are you suffering of hormonal disturbances?	Yes	75	62.5
	No	45	37.5
Are you suffering of polycystic ovary?	Yes	48	40
	No	72	60
Are you suffering of body fatigue?	Yes	91	75.8
	No	29	24.2
Did you have disturbances in immune system?	Yes	47	39.2
	No	73	60.8
Did you have any abnormal inherited aspect in family?	Yes	58	48.3
	No	62	51.7
Did you have suffering of depression?	Yes	65	54.2
	No	55	45.8

Table -6 shows observed frequencies, percentages of "Medical Information Side". Results shows that who had suffering of hypertension are accounted 37(30.8%), and who had suffering of diabetic are accounted 16(13.3%), and who had suffering of cardiac problems are accounted 43(35.8%), and who had unusual percent of cholesterol are accounted 57(47.5%), and who had suffering of digestive

system problems are accounted 70(58.3%), and who had suffering of any osteoporosis problems are accounted 89(74.2%), and who suffering of hormonal disturbances are accounted 75(62.5%), and who suffering of polycystic ovary are accounted 48(40%), and who suffering of body fatigue are accounted 91(75.8%), and who had disturbances in immune system are accounted 47(39.2%), and who suffering of hormonal disturbances are accounted 75(62.5%), and who had any abnormal inherited aspect in family are accounted 58(48.3%), and finally who had suffering of depression are accounted 65 (54.2%).

Table 7-Distribution of Life Style Concerning Studied of Obese Women.

The Life Style Side	Resp.	No.	%
How many are diet meals?	1 - 2	20	16.6
	3 - 4	83	69.2
	5 - 6	17	14.1
What is your diet classification? (Proteins)	Yes	83	69.2
	No	37	30.8
What is your diet classification? (Carbohydrates)	No	3	2.5
	Yes	117	97.5
What is your diet classification? (Fats)	No	15	12.5
	Yes	105	87.5
What is your diet classification? (Minerals salts (Gaseous Drinks))	No	52	43.3
	Yes	68	56.7
What is your diet classification? (Vitamins)	No	63	52.5
	Yes	57	47.5
How did you take your meal?	Fast	25	20.8
	Mod.	64	53.3
	Slow	31	25.8
Did you concert on one kind of food?	Yes	40	33.3
	No	80	66.7
Did you do athletic practice every day?	Yes	28	23.3
	No	92	76.7
How many hours did you sleep in a day?	4 - 5	14	11.7
	6 - 7	20	16.7
	8 - 9	44	36.7
	10 >	42	35.0
Did you do diet exercise?	Yes	34	28.3
	No	86	71.7
If you are in a bad condition did you take more food?	Yes	60	50
	No	60	50
Did you take special medicine?	Yes	53	44.2
	No	67	55.8

Table -7 shows observed frequencies, percentages of "The Life Style Side". Results shows that who had numbers of diet meals(1 – 2) are accounted 20(16.6%), and who had diet classification (Proteins) are accounted 83(69.2%), and who had diet classification (Carbohydrates) are accounted 117(97.5%), and who had diet classification (Fats) are accounted 105(87.5%), and who had diet classification (Gaseous Drinks) are accounted 68(56.7%), and who fast taken his meal are accounted 25(20.8%), and who concert on one kind of food are accounted 40(33.3%), and who hadn't athletic practice every day are accounted 92(76.7%), and whose sleeping time are less than eight hours are accounted 34(28.4%), and who hadn't diet exercise are accounted 86(71.7%), and who in a bad condition are taken more food accounted 60(50%), and finally asking about who had taken special medicine are accounted 53 (44.2%).

Table 8- Simple Linear Regression Analysis on the effects of BMI on Physical and metabolisms status in compact form.

Physical and metabolisms status: dependent variable. Linear method in the					
	0.37621	one			
	0.14153				
	0.13426				
	0.20418				
-value	19.45394	Sign. value	0.0000		
Variable	B	SE.B	Beta	(t)	Sig.
BMI	0.016587	0.003761	0.3762	4.411	0.0000
(Constant)	-0.110695	0.135964	-	-0.814	0.4172

Table -8 shows are on effects of BMI on Physical and metabolisms status in compact form through calculating grand means of score for their components. Slop of (BMI), a large occur function (Physical metabolisms status) (0.016587), a 0000.

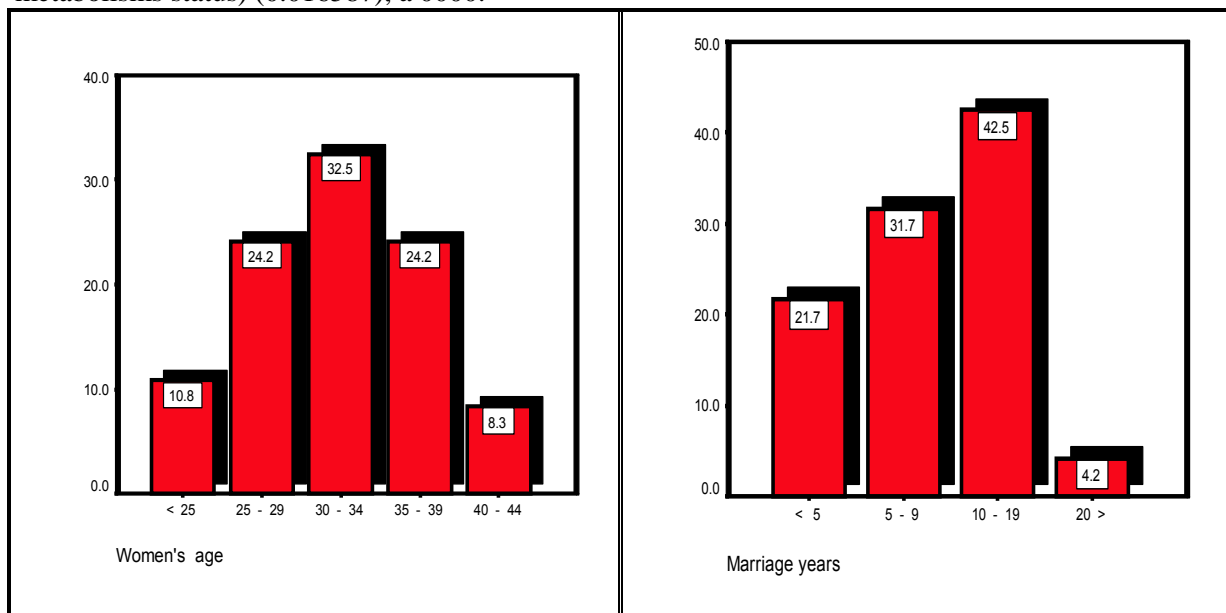


Figure 1-Represents percentage's distribution of "SDCv."

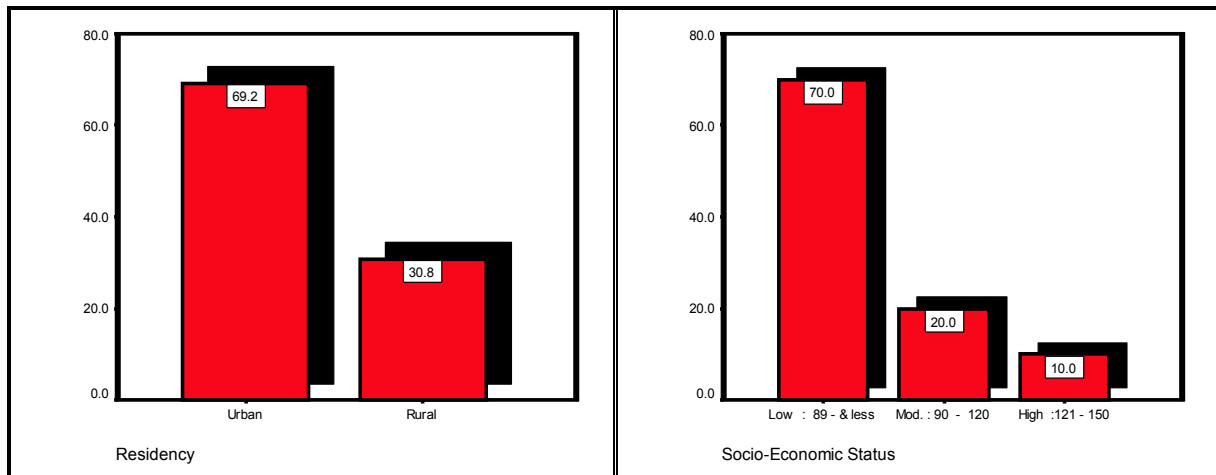


Figure 2-Bar charts concerning SDCv. for studied women's sample

Figure-3 show long term trend of linear regression BMI effects on Physical and metabolisms status in compact form in compact form. The figure had been explained that within creasing grade concerning within (BMI), flagging of increments had occurrences in (Physical and metabolisms status) with morbidity status.

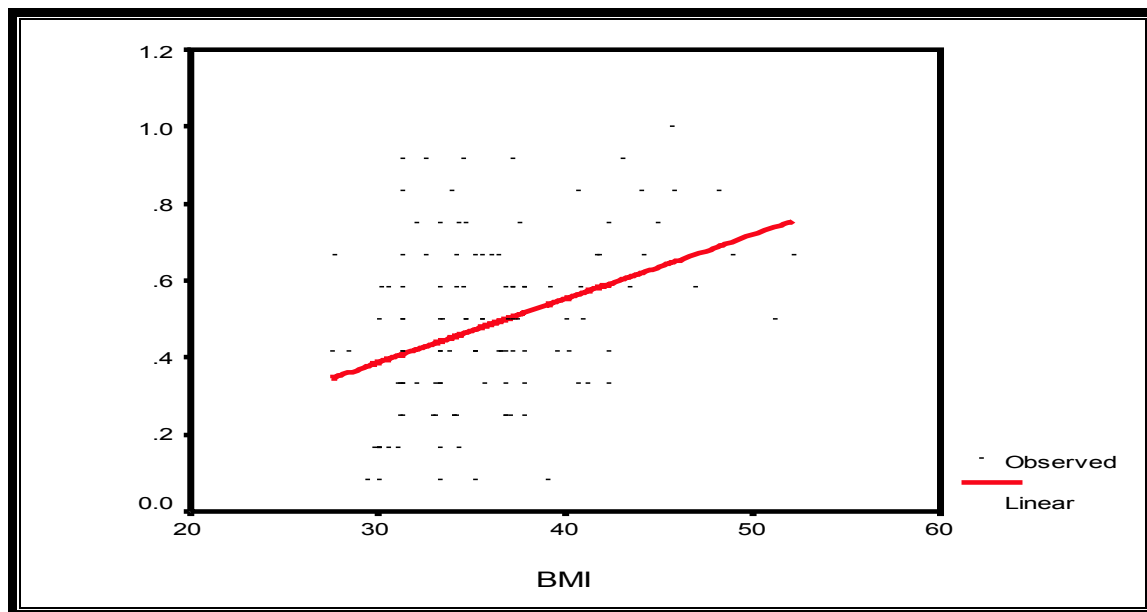


Figure 3- Long term trend of BMI effects on Physical and metabolisms status in compact form

Discussion

The study showed that the highest percentage (39%) of study sample at age group (30- 34) years, (51%) of study sample years of marriage are ranging between (10-19) years, (84%) of study sample their socio-economic level were low. Jitendra & Ranjan (2002), found those that women 35 year old and above are probable to be overweight, but women (15-24) year old are possible to be obese. More over young married women has health awareness in physical activity than women in reproductive age [7]. (2004) those found that low socioe-conomic status is strongly associated with a variety of risk factors for obesity [8].obesity is higher among less-educated men and women. Indeed, more educated women tend to improve their health profile. The highest percentage (46%)of study sample for body mass index (BMI) their majority in light of obsess[9]. Classifying body mass index (BMI) according to body – fat levels indicate appearing obesity – related health problems; as following: Normal (BMI 18-24), overweight(BMI 25-30), obese I(30-40), obese II (35-40), obese III BMI greater than 40. The highest percentage (52%) of study sample their age of Menarche group (13- 14) years. The highest percentage (77%) of study samples among of them had delivery cesarean section [10]. stated

that menstrual disturbances connected with obesity may predispose to risk of ovarian, breast and endometrial cancer by increasing BMI [11]. overweight caused stretched pregnancy leading to operative delivery that increase of infection. The highest percentage (66%) of "Laboratory Examination Side "results shows that who hadn't do blood cholesterol test [12]. reported that hyper triglyceride micwaista simple clinical phenotype resulted by a combination of an elevated waistline with a simple blood marker triglyceride accumulation lead to excess visceral adiposity. The highest percentage (89%) who had do abdominal surgical[13].findings “provide new insight into patients' limited awareness of the peri-operative risks related to obesity and reinforce the need for more focused education about obesity-related risks”[14]. stated that “specific risks related to obesity that warrant pre-operative discussion such as longer “operative time, diminished tissue oxygenation and immune function, and increased risks for deep venous thrombosis, pulmonary embolism, respiratory failure and need for mechanical ventilation, cardiac complications, nerve injury, infection and bleeding”.

The highest percentage (91%) of "Medical Information Side" who suffering of body fatigue, and (89%) who had suffering of any osteoporosis problems[15]. reported that stress – pain – depression of arthritis in obesity people lead to decreased mobility.

The highest percentage (117%) of "The Life Style Side" who had diet classification (Carbohydrates), and (105%) who had diet classification (Fats).

[16] found that high-calorie, sugar, fat foods aggravate obesity among women. The large portion sizes and high-fat content of fast foods can be related to increasing obesity rates. Slop function (physical, metabolism status) (0.016587) a 0000. Body mass in dexare reported highly significant different at $P < 0.01$ among different groups. A meaningful relationship are accounted between the two factors. Amer & others (2013), found them metabolic alteration occurred by the association between adipose tissue cellularity and obesity.

Conclusion

In accordance with the results of this study the researcher can conclude the following:

- More than third of the study samples their age group (30-34), more than half of the study samples years of marriage are ranging between (10-19) years, more than three forth of the study samples their socio-economic levels were low, approximately half of the study samples for body mass index (BMI) their majority in light of obsess, more than half of the study samples their age of menarche group (13-14) years, more than three forth of the study samples among of them had delivery cesarean section, two third of the study samples of "Laboratory Examination Side "results shows that who hadn't do blood cholesterol test, more than three forth who had do abdominal surgical, more than three forth of "Medical Information Side" who suffering of body fatigue, more than three forth who had suffering of any osteoporosis problems, more than one hundred percent of "The Life Style Side" who had diet classification (Carbohydrates), more than one hundred percent of "The Life Style Side" who had diet classification (Fats), slop of (BMI), a large occur function (Physical metabolisms status) (0.016587), a 0000. Different at $P < 0.01$ among different groups, a meaningful relationship are accounted between the two factors, "BMI on Physical and metabolisms status in compact form", and that are accounted at $P < 0.01$, that with increasing grade concerning within (BMI), flagging of increments had occurrences in (Physical and metabolisms status) with morbidity status.

Recommendation

Prompting healthy advices in order to follow up treatment respecting weight less in Obese women, throughout reducing calorie diet and concentrated physical activities.

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