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(BMI)	( )	(N= )
Cut-off ,BMI	( )	( )
		$P \leq / (X^2)$
		$(P \leq / )$
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- 1 - Malposture
- 2 - Abnormalities of lower extremities



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- 1 - Charrette (2002)
  - 2 - Hyperpronation of foot and ankle
  - 3 - Valgus Knees (knock-knees)
  - 4 - Gait
  - 5 - Frey (2000)
  - 6 - Sadat – Ali (1998)



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(BMI)

$$BMI = \frac{\text{وزن}}{\text{قد}^2}$$

BMI

cut off-BMI

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(X<sup>2</sup>)

( )	( )	( )	BMI	( )	( )	
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/ ± /	/ ± /	/ ± /	/ ± /	/ ± /	/ ± /	(n= )
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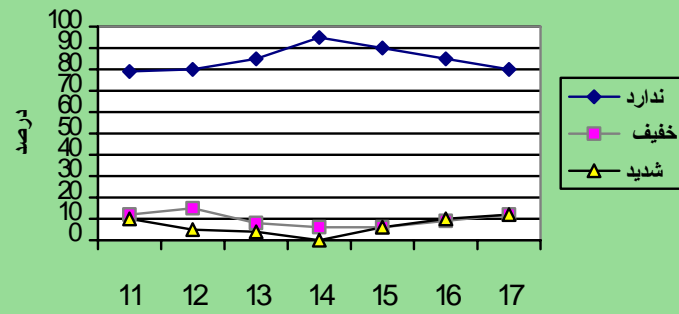
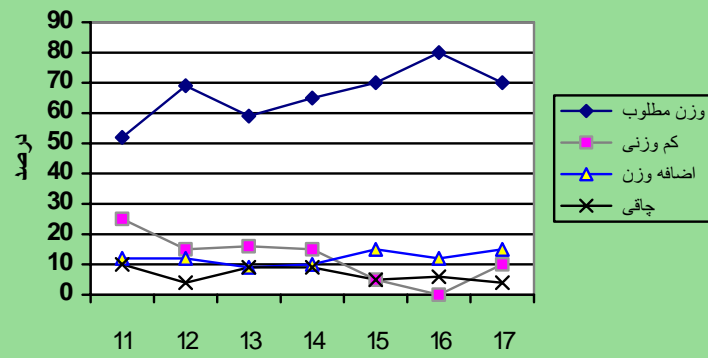
(BMI) :

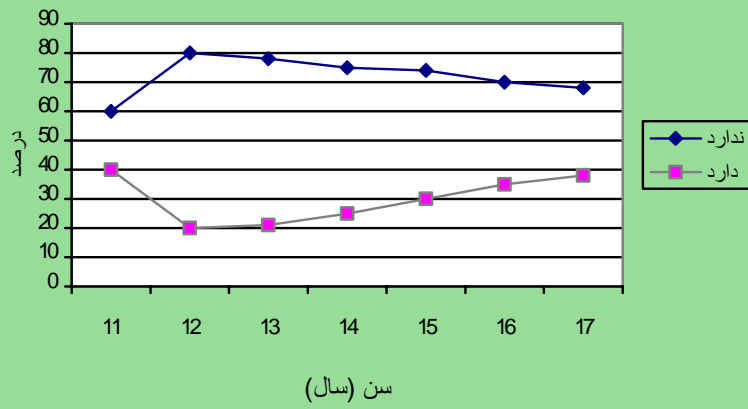
(n = )

BMI -

		/ BMI
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(n = )

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$(X^2)$

$(X^2 = / )$

$(P \leq / )$

$(X^2 = / )$

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$$(X^2 = / )$$

$$(P \leq / )$$

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(P ≤ / )

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Baur, ) ( )

(Bordin et al, 2001)

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(Van boerum and Sangeorzan, 2003)

(2000

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(Tremblay and Willms, 2003)

(P ≤ / )

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12. Birrer, R.B., griesemer, B.A. Cataletto, M.B. (2001). "Pediatric sports medicine for primary care". New York. Lippicott Williams and Wilkings.
  13. Booth, M.L. Wake, M., Armstrong, T., Chey, T., Hesketh, K., Mathur, S. (2001). "The epidemiology of overweight and obesity among Austral children and adolescents, 1995-97". *Aust NZP public health*, 25 (2). PP: 162-169.
  14. Bordin, D., De Giorgi, G., Mazzocco, G., Rigon, F. (2001). "Flat and Cavus foot, indexes of obesity and overweight in a population of primary – school children". *Minerva pediatri*. 53 (1). PP: 7-13.
  15. Carter, D.R., M. Wong and T.E. (1991). "Muscleoskeletal ontogeny phylogeny, and functional adaptation". *Journal of Biomechanice*. 24:PP: 3-16.
  16. Charrette, M. (2003). "Children, Flat foot and esthetic support". *The chiropractic journal*.
  17. Charrette, M. (2002). "Orthotic support for overweight obese patients". *The chiropractic journal*.
  18. Coyne, L.L. (2002). "The oldest metabolic disorder. *Impact magazine*".
  19. Douglas, H., Richie, J. (2001). "Adult flatfoot. *Podiatry Network*".
  20. Food and Nutrition research center. (2002). *Asian children are becoming obese*.
  21. Frey, C. (2000). "Obesity and foot problems". *Biomechanics*, 3 (1). PP:33-37.
  22. Goodman, S., Lewis, P.R. Dixon, A.J., Travers, C.A. (2002). "Chilhood obesity: of growing urgency". *The medical Journal of Australia*. 176(8). PP:400-401.
  23. Janghorbani, M., Parvin, F. (1998). "Prevalence of overweight and thinnes in high school girls in Kerman, Iran". *Int J Obes relat metab disord*. 22 (7). PP:629-33.
  24. Must, A., dallal, G.E., Dietz, W.H. (1991). "Reference data for obesity: 85<sup>th</sup> and 95<sup>th</sup> percentiles of body mass index (wt/ht<sup>2</sup>) and triceps skinfold thickness". *Am J clin Nutr*. 53. PP:839-846.
  25. Napolitano, C., Walsh, S., Mahoney, L., Mc Crea, J. (2000). "Risk factors that may adversely modify the natural history of the pediatric pronated foot". *Clin podiatr med surg*. 17(3). PP:397-417.
  26. National longitudinal survey of children and youth: childhood obesity. (2002). by, human resources development canada and statistics canada.
  27. Ogden, C.L. Flegal, K.M. carroll, M.D., Johnson, C.L. (2002). "Prevealance and trend in overweight among us children and adolescents 1999-2000". *JAMA*. 288. 1728-1732.
  28. Sadat – Ali, M. (1998). "Plantar fasciitis / calcaneal spur among security forces personal". *Military medicine*. 163 (1). PP:56-57.

- 
29. Strauss, R.S. (2000). "Childhood obesity and self – steem". *Pediatr.* 105(1). PP:1-5.
  30. Tee, E.S. (2002). "Obesity in asia: prevalence and issues in assessment". *Asia pacific journal of clinical nutrition.* 11 (58). 5694.
  31. Tremblay, M.S, Willms, J.D. (2003). "Is the Canadian childhood obesity epidemic related to physical inactivity?" *Int J Obesity.* 27 (9). PP:1100-1105.
  32. Van Boerum, D. H., Sangeorzan, B.J. (2003). "Biomechannics and pathophysiology of flatfoot". *Foot ankle cli.* 8(3). PP:419-430.
  33. Wang, Y. et al. (2002). "Trends in obesity and underweight in older children and adolescents in the united states, Brazil, China and Russia". *Am J Cli Nutr.* 75. PP:917-919.
  34. Watkins, J., and Peabody, M. (1996). "Sport injury clinic". *Journal of sports Medicine and physical fitness.* 36(1). PP:43-48.